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ABSTRACT

This comprehensive student text and workbook, for grades four through eight, contains 16 workshop units focusing on walking field trips, aerobic pacing concepts, walking techniques, nutrition, weight control and healthy life-style planning. Co-ordinated homework assignments are included. The appendixes include 10 tips for walking, a calorie chart, how to avoid a heart attack, a glossary, creative walking ideas, and several walking quotations. (JD)

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WALKING WELLNESS

STUDENT WORKBOOK

Robert Sweetgall
Robert Neeves, PhD
Exercise Physiology

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SP 029 708

WALKING WELLNESS

STUDENT WORKBOOK

Robert Sweetgall
Robert Neeves, PhD

Student _____
School _____
Grade _____
Teacher _____
Subject _____

Published by:
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Other books by Robert J. Sweetgall

- *Fitness Walking*
- *The Walking Wellness Teacher's Curriculum Guidebook*
- *The Walker's Journal*
- *Walking for Little Children (A K-3 Teacher's Resource Guide)*

Special credits

Cover design: Lynne Tesch. Artwork and layout: John Carlisle, Donna Frommelt, and Lynn Burds, of Carlisle Communications. Illustrations: Marcia Panych. Photography: As noted.

About the Front Cover

Students at the Fort River Elementary School (Amherst, MA) find that walking is entertaining and educational exercise as they walk with Bob Sweetgall. Photograph by Joanne Witek.

About the Back Cover

One of the youngest "walking clubs" in America, The Fort River Walkers, welcome the new weekend with Friday Fitness Walks.
Photograph by Joanne Witek.

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Acknowledgement

One morning on my walk across America, the 123rd morning of my walk, I was eating breakfast in a cattle auction cafe with Dr. Sara Jane Bates and Jim Wassom, principal and assistant principal of Oaklea Middle School (Junction City, Oregon) where I was scheduled to give an assembly program on "Walking" that morning. Over pancakes, the three of us "brainstormed" about a future Junction City parent-teacher-student community walk. Dr. Bates said: ". . . if we could only tie this walk into our school curriculum for a full year of walking education."

Walking alone on the highways, across the deserts, Rockies, Great Plains and Appalachia, I thought about that breakfast conversation. After millions of footsteps of thought, I came up with over 100 ideas to help children walk for wellness. After my walk, I rearranged those ideas into 20 workshops—a course I named ***Walking Wellness.*** Many of the creative ideas for these workshops were inspired by great people, especially children, whom I met along the way . . . children who joined me on the highway or near their schools for a mile or two or more of walking . . . children who provided me with good company, good conversation and kind actions. To all of you, my roadside companions, thanks for helping me finish this mission.

To the 150 Anna P. Mote Elementary School 6th graders who walked with me the opening 3½ miles from Delaware to Maryland . . . to all the Maryland students in Elkton, Westminster, Cumberland and Hagerstown who escorted me to their schools . . . to Robert of Uniontown who walked a mile with me past the fork in the road where I would have gotten lost . . . to 4th grader Shawn of Clear Springs, MD who met me in a gas station and got me to speak at her school . . . to the Toledo school bands for playing 3 miles of marching music . . . to 9-year-old David who walked 2 miles through center city Chicago telling me how he planned to walk around the world when he grew up that next year . . . to Terry Weisman's 3-year-old son who walked and piggybacked 20 miles with us . . . to St. Odelia's 400 students who walked a schoolyard lap with me . . . to Buck, 13, who walked 9 miles in freezing rain with me . . . to the Teske children who lent me their winter jackets for sleeping covers in their grocery store attic loft . . . to all 8 students of the Springdale Country Schoolhouse who let me play in their kickball game at lunch recess . . . to the 75 students of Helena and Anderson Middle Schools who walked me up the Continental Divide . . . to the Leroy children: Navarre, Charity, Dakota, Cheyenne and Noah and their English sheep dog, Argon, who let me sleep in peace under their Christmas tree in their small log cabin in the icy Cascade range . . . to all the Worcester school children from the Tatnuck and Flagg Street schools in Worcester, Massachusetts who wrote me letters while following John Dignam's weekly articles of my walk in *The Evening Gazette* . . . to the Oaklea children who toured me 2 miles around Junction City's farmlands . . . to Tammy, Nathan and David who voted "yes" at the dinner table to convince their parents to let me sleep over in their home that night in Gazelle, CA . . . to the 200 children of Castaic Junction, CA who escorted me a mile in the rain to their school . . . to the boys in the Mojave Desert gas station who let me sleep in the back of their broken down Pontiac station wagon . . . to little Joseph who had his mother, Lupe, stop in the Johnson Canyon desert (UT) to see if I needed water . . . to Derrick, 12, and Patricia, 10, who each walked with me from their school in Pine Bluffs, WY to their homes in Bushnell, NE, 9.4 miles . . . to Shawn, 13, who walked 32 miles in a day with me along the Massachusetts coast . . . to my cousins Craig, Bonnie and Cindy who walked 3 miles in New York with me . . . to the new 6th graders of Mote Elementary school who traveled to New York to finish the journey their upper classmates had started with me 11,208 miles back up the road . . . to The Rockport Company and Gore-Tex Fabrics who protected my feet and body all through this walk . . . and to everyone else who helped, thank you for being so supportive. I hope you will remember walking with me as long as I will remember walking with you. Be well and keep walking. ★ ★ ★

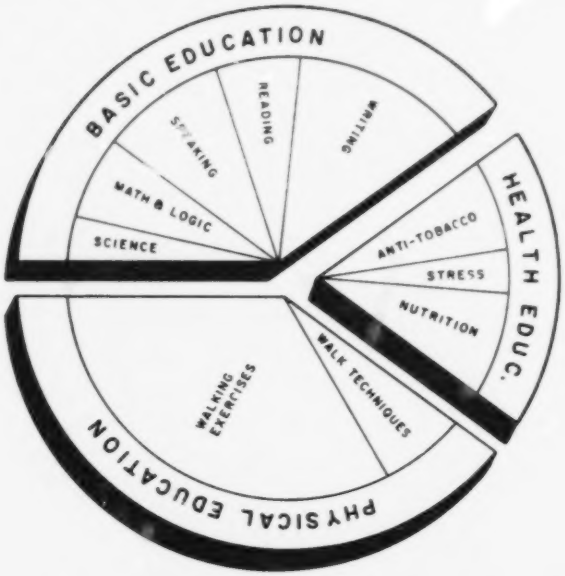
On The Road to Wellness

Reason To Walk

Walking, any kind of walking, *fast or slow, long* or *short*, whatever, is *healthy*. In fact, *walking* is *your healthiest exercise* because you can do it for the rest of your life, safely. After all, how many senior citizens do you see playing basketball, touch football or doing aerobic dances? These sports may seem exciting to you now, but they are *not* the answer to lifelong wellness. *Walking* is the *one* exercise that is totally aerobic. It conditions the heart muscle while toning the large muscle groups (legs). Walking is energizing, entertaining and emotionally rewarding. It promotes creative thinking, relieves stress and improves the quality of sleep. Walking burns *five times* more calories than watching TV (5 *vs.* 1 calorie per minute) to help you *lose* or *control* weight. Walking does all this and more—without high risk of injury. What other form of exercise offers you this for your whole life, and for fr[illegible]?

What is *Walking Wellness?*

Walking Wellness is a creative course consisting of 16 walking workshops that will exercise your mind as well as your body. During each workshop you will *walk, talk, write, read, reason, calculate, plan, cooperate* and *discover*. You will learn the meaning of *aerobic walking* and *what it is to walk* 3½ or 4 miles per hour. You will discover how fit you are by how far you can walk in 15 minutes. You will have the opportunity to plan a fitness walking program that will strengthen your heart and tone your muscles and improve your walking performance. In most workshops you will get to *walk in teams*—not in *competition*—but rather in *cooperation*. In the *Walking Calories* workshop, you and your teammates will figure out how far you need to walk to burn off a slice of apple or a piece of candy. By the end of this school year, you will have a better understanding of your body, and how to keep it healthy for the rest of your life.



Balanced Education

Objectives

The objectives of *Walking Wellness* are:

1. To gain an appreciation of walking as both a *physical* and *mental* excercise
2. To teach you *aerobic walking* as a *lifelong, noncompetitive* exercise
3. To help you understand the relationship between *walking* and *calories* and the *food-energy balance*
4. To strengthen your commitment against tobacco
5. To use *walking* to reinforce the basic skills of *reading, writing, mathematics, and communications.*
6. To broaden your understanding of your own environment by walking in it
7. To improve your lifestyle by writing your own *Walking Wellness Action Plan*
8. To involve your family in your *Walking Wellness* assignments and lifestyle plans.

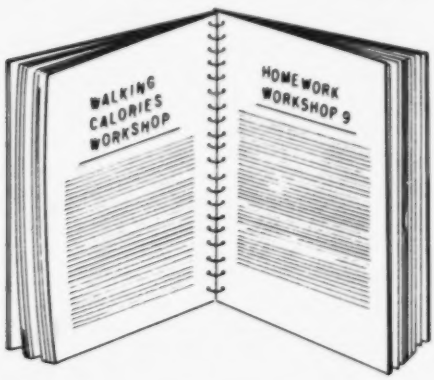
How *Walking Wellness* Works

Walking Wellness is a collection of 16 workshops. On the average, you will participate in *one workshop* each week. At the beginning of each class, your teacher will explain the workshop to you. Despite this, it is a good idea to have read the workshop as part of your previous homework assignment. That way you will be familiar with the lesson of the day. In other words, as part of your homework for *Workshop 6*, it would be wise to read *Workshop 7* in your *Student Workbook*.

You will have approximately ½ hour to complete each workshop in class. Half of that time is devoted to various *walking exercises*—the other half to understanding those exercises. Each workshop is coordinated with a homework assignment which reinforces the principles of your last workshop. All assignments and instructions are completely outlined in your *Student Workbook*.

The Student Workbook

This *workbook* is yours for life. So treat it well! Let it be your *walking journal*, your *walking textbook*, your *note taking book*,



and your *homework notebook*. You must bring this workbook to all your *Walking Wellness* classes.

How To Do Well In Walking Wellness

In this course anyone can do well with some effort. You need *not* be athletic to do well in *Walking Wellness*. The important things are that you: (1) *listen to instructions from your teacher*, (2) *follow those instructions*, (3) *respect your fellow classmates*, (4) *do your Walking Wellness homework assignments*, and (5) *make positive improvements in your lifestyle*. That is all you need to do to be a *grade "A"* student in this course. Consider one other point: in *Walking Wellness* an "A" is more than just an outstanding grade. An "A" means you will probably live a longer, healthier and a happier life, and maybe that's as important as anything else on your report card.

Note 1: Brisk walking burns about the same number of calories mile for mile as jogging—but without the high impact stress placed on the joints as in jogging. Walking, with ⅓ the impact landing of jogging, creates just the right amount of stress to help your bones grow strong.

Note 2: The 3 components of a sound fitness program are: **cardiorespiratory training** (aerobics), **flexibility training** (stretching), and **strength training**. While walking helps you in all 3 of these areas, it is most beneficial as an aerobic conditioner. For this reason, walking should be used with separate flexibility and strength training exercises for total fitness.

WORKSHOP

1

A Walking Field Trip

Sixth grade students from the Mote Elementary School (Wilmington, DE) started an 11,208 mile walk with Rob Sweetgall on September 7, 1984. All 150 students walked with Rob 3.5 miles from Newark, DE to the Maryland State Line to kick off Rob's 50-state (Alaska and Hawaii by air shuttle), one-year solo walk of America to promote *Walking For Cardiovascular Health.* Could you walk 3.5 miles?

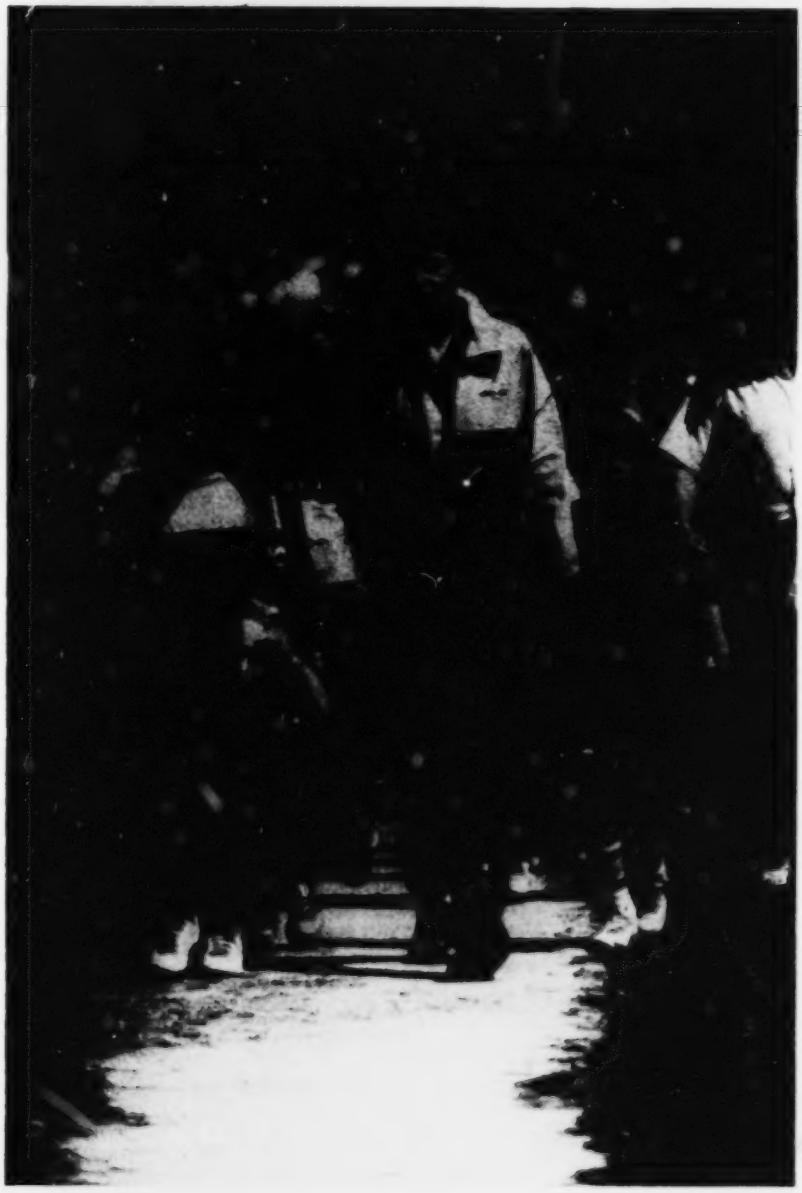


Photo by DuPont Magazine.

1

A Walking Field Trip

Get Ready For A Field Trip! If your teacher announced a *class field trip*, would you picture yourself stepping onto a yellow school bus? If so, guess again. This field trip is different. It is *on foot*. On this trip your legs are your wheels. You will be walking about *one mile*. On this walk try to discover the world around you and all the things you miss staring out the glass window of a bus or a car. Above all, ask yourself how it feels to go somewhere on your own power.

To Do Well In This Workshop You Should

(1) Eat a good wholesome breakfast so that you will have enough energy to walk on the field trip.

(2) Wear comfortable clothing suited for the weather.

(3) Bring your *Walking Wellness Workbook* and a pencil or pen to class.

(4) Read and re-read page 3 *before* this workshop.

(5) Take good notes during this workshop.

(6) Make sure you understand the homework assignment before your class is dismissed.

Before The Field Trip

Take a few moments before your field trip to describe it.

(A) Date of field trip __ /__ /__

(B) Place to be visited _____

(C) What do you hope to see on your field trip? _____

_____

_____

Questions To Think About

During your field trip take time to write down your thoughts to the questions below.

Question 1 What scenery have you noticed while walking that you never noticed before from a car?

Question 2 What was your favorite part of this walk?

Question 3 What did you learn on this walk?

Question 4 How does going somewhere on foot make you feel inside?

Question 5 What new ideas came into your mind on your walk?

After The Field Trip

After you return to school, take a few minutes to finish answering the 5 questions above. Then use the space below to write down comments made by your classmates. If you take good notes, your homework will be easier.

Homework — Workshop 1

Part (A) Think about how walking could become a bigger part of your life. On a normal day, how many times do you depend on car or bus rides? List below all the places to which you are *driven*. (*Hint:* Think about everything that goes on in your life from morning until night).

Places You Normally Ride To

(1) _____ (2) _____

(3) _____ (4) _____

(5) _____ (6) _____

(7) _____ (8) _____

Part (B) Of all the places you listed above, to which ones would you be willing to walk?

_____

_____

Part (C) *Begin your new walking record.* Before Workshop 2 you are to take 3 *new walks.* You can walk with your friends, relatives, neighbors or by yourself. Just keep a record of your walks in the spaces provided below. Check your favorite walk.

Walk 1: I walked from _____ all the way to _____ on __ /__ /__.

Walk 2: I walked from _____ all the way to _____ on __ /__ /__.

Walk 3: I walked from _____ all the way to _____ on __ /__ /__.

Part (D) Think about all the places that are within reasonable walking distance of your school that might make for an interesting *walking field trip.* List 5 places you would like to visit on a future *walking field trip.*

(1) _____ (2) _____ (3) _____

(4) _____ (5) _____

Part (E) Read pages 5–7 to prepare for Workshop 2.

★ ★ ★ **End of Workshop 1** ★ ★ ★

WORKSHOP

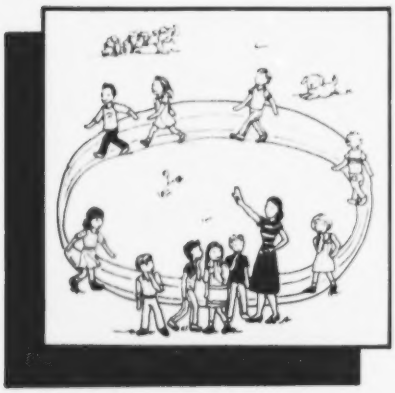
2

Aerobic Walking

Photo by Joe Forward, Oakiea Middle School.

An easy way to measure your pulse: Immediately following your walking exercise, gently place your 2nd and 3rd fingers on your carotid artery (side of neck). Count the number of pulses in 6 *seconds.* Multiply that number by 10 to find your heart rate (*beats per minute*). For example: If you count 8 beats in 6 seconds, your *pulse* is 8 × 10 or 80 beats per minute (BPM). If you count 12, then your *pulse* is 12 × 10 or 120.

For the majority of children, aerobic walking is highly beneficial if it raises the heart rate between 120 and 150 beats per minute (12 to 15 pulses during a 6 second count). How fast does your heart beat when you walk?



Aerobic Walking

Let's Walk Aerobically! Walking is one of the best all-around aerobic exercises. It can help you lose weight. It strengthens your heart and tones your other muscles. Walking can help you control stress, and it will improve your mental alertness and creativity. Besides, walking is the *safest* exercise.

In your first workshop you took *A Walking Field Trip*. Can you remember how easy a walk that was? You might even wonder if such *easy walking* is "real exercise." Actually it is! Yes, even *easy walking* is exercise. However, *brisk* (fast) *walking* will benefit you more. The ideal walking pace is that pace which *you can maintain for 20 to 40 straight minutes without pain*. During a fast walk your heart beats faster—typically 120 to 150 times per minute. Your breathing speeds up too, but not so much that you become winded. This is aerobic walking.

Your Walking Goal

In this *Aerobic Walking workshop* your goal is to discover the walking speed which raises your heart rate ***above 120*** beats per minute, but ***not above 150*** beats per minute. This can be accomplished by measuring your *pulse* immediately after each of your walks. If your pulse is ***below 120,*** you can walk faster. If your pulse is ***above 150,*** you may need to slow down. If your heart is beating between 120 and 150 times per minute, then you have found the *aerobic target zone*.

This whole process is a *trial & error* technique. You *try* one pace and check your heart rate. Then you *try* a new walking pace and check again. Eventually you will hit your target heart rate.

Trial Walk 1

Your First Aerobic Walk In Trial 1 your teacher will pace you around the *Straw Walk* course at a comfortable pace of 3.5 MPH.

As you begin your first lap, note your breathing level and the amount of effort required to walk 3.5 MPH. Can you sense how fast your heart is beating? Are you breaking a sweat? Is your body warming up?

As you finish your lap, wait for your teacher's signal so you can measure your *pulse*. This will tell you your *walking heart rate* which you should record along with your *lap time* below. You can find your *pace* by using the *walking speed tables* in the appendix of this book (page 85).

Aerobic Walk	Lap Time	Pace	Walking Heart Rate (Pulse)
Trial 1	____:____(min:sec)	____.____MPH	_____Beats/Min (BPM)
Trial 2	____:____(min:sec)	____.____MPH	_____Beats/Min (BPM)
Trial 3	____:____(min:sec)	____.____MPH	_____Beats/Min (BPM)

Trial Walk 2

Adjusting Your Pace You are now on your own! Your teacher will not pace you for this lap. Now you must decide whether to walk *faster* or *slower* than in Trial 1. Your decision should be based on *your walking heart rate* (*pulse*) as measured in Trial 1. If your *pulse* was ***below 120,*** then you need to walk *faster.* If your pulse was ***above 150,*** you need to walk *slower.*

Trial Walk 3

Your Final Adjustment Walk *faster* or *slower* such that your *heart beat* (*pulse*) falls in the *aerobic target zone* (120 to 150 BPM). Again, *record* your *lap time* and *pulse.*

Physical Feelings In the space below, briefly describe how you feel after walking aerobically.

_____

_____

_____

Homework — Workshop 2

Part (A) For the 4 activities listed below, guess what your *heart rate* will be. Record your estimates below.

Activity	Part (A) Your Estimated Heart Rate (BPM)	Part (B) Your Measured Heart Rate (BPM)	Part (C) Aerobic Zone
Lying Still in Bed	_____	_____	_____
After Brushing Your Teeth	_____	_____	_____
After Climbing 1 Flight of Stairs	_____	_____	_____
After a 16 Minute Brisk Walk	_____	_____	_____

Part (B) Perform each of the 4 activities above (separately of course). Then immediately following each activity, measure your pulse. Record your pulse alongside your estimates. How close were your guesses?

Part (C) In the column marked **Aerobic Zone,** place a check next to those activities you feel were good aerobic exercises. In the space below, describe the kind of physical feelings you get that let you know when you are exercising in the *aerobic target zone.*

_____

_____

_____

_____

_____

Part (D) Read pages 9–11 to prepare for Workshop 3.

★ ★ ★ **End of Workshop 2** ★ ★ ★

WORKSHOP

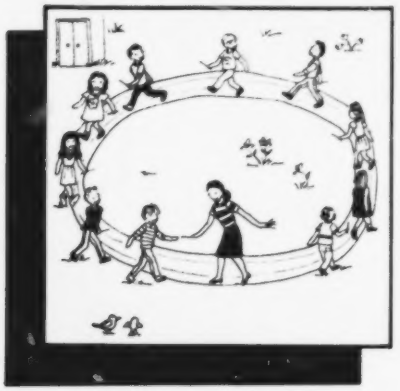
3

The Straw Walk

In a *Straw Walk,* the object is to walk ¼ mile laps at the fastest pace you can hold for a *full 15 minutes.* The fitter you become, the more laps you will be able to walk in 15 minutes. As you complete each lap you will be handed a "straw." The trick is to keep moving in stride as your teacher hands you your "straw." How many "straws" could you earn in 15 minutes of fast walking?

Photo by Joe Forward, Oakes M. S., Junction City, OR.

Photo by Joanne Witek, Fort River Elementary, Amherst, MA.



The Straw Walk

How Fast Can You Walk? How many laps of a ¼ mile loop can you walk in 15 straight minutes? 3 laps? 3½ laps? How about 4 laps (1 mile)? Or are you in good enough shape to walk 5 laps in 15 minutes? You will find out in the *Straw Walk* that follows!

What Is A Straw Walk?

A *Straw Walk* is a 15-minute fast walk. How fast is fast? Here *fast* means the *fastest walking pace* you can hold for *15 full minutes.*

Why Do The Straw Walk?

The *Straw Walk* helps you *four different ways:* (1) It tells you how *fit* you are. (2) It teaches you *pacing.* (3) It tells you your walking *speed.* (4) It provides you with great aerobic exercise. All this is accomplished in 15 minutes.

To Do Well In A Straw Walk You Should

(1) Save your breath by *not* talking.

(2) Walk at your own pace—*not* your friend's pace.

(3) Warm up slowly before your *Straw Walk.*

(4) Pace yourself so you do not "burn-out."

(5) Avoid eating a large meal right before the walk.

(6) Avoid slowing down for your straw hand-off.

Important: this is a walk—not a run. Also, the *Straw Walk* is ***not*** a test. This is an exercise that will help you determine your *fitness level.* If you *jog* or *run* during the *Straw Walk,* you are only cheating *yourself!*

Your First *Straw Walk*

Assemble at the *start line* of the *Straw Walk* course and quietly listen for instructions. Try to *relax!* When your teacher gives a signal, begin walking fast. Each time you complete *one lap,* make sure you receive a straw. After 15 minutes a *whistle* will sound. *Freeze* in place and prepare to take your pulse. Count your heartbeats starting with the next whistle (2nd whistle) and ending 6 seconds later (3rd whistle). *Record your heart rate and Straw Walk score* below. Then as your teacher comes by, announce your *score,* hand over your straws, and continue your cool-down walk.

Your *Straw Walk* Scorecard

Walking Heart Rate = ____ beats per minute.

Straw Walk Score = ____ . ____

No. of straws ____ ____ Fraction of lap completed

Example

Your Straw Walk Score is the number of laps you completed . . . plus . . . your position on the course as of the final whistle. For example, if you finished with 4 straws, at the 6th cone on the Straw Walk Course, then your Straw Walk Score is 4.6 (4 and 6/10 laps). That means you averaged 4.6 MPH for 15 full minutes.

Improving Your Straw Walks

How Fit Are You? Look at your **Straw Walk Score** above. Now examine the chart on page 12. Where do you stand on the Fitness Scale?

Question: Why is the **Straw Walk** a good measure of cardiovascular fitness?

Answer: The fitter you are, the further you will be able to walk in 15 minutes.

Straw Walk Fitness Scale

	Straw Walk Score	Fitness Percentile
Excellent	5.4	99%
	5.3	98%
	5.2	97%
	5.1	96%
	5.0	95%
Very Good	4.9	93%
	4.8	90%
	4.7	88%
	4.6	85%
	4.5	82%
Good	4.4	80%
	4.5	77%
	4.2	75%
	4.1	73%
	4.0	70%
Fair	3.9	65%
	3.8	60%
	3.7	55%
	3.6	50%
	3.5	45%
Not So Good	3.4	40%
	3.3	32%
	3.2	24%
	3.1	16%
	3.0	10%

Example: If you can score 4.8 for example, you will be in the top 10% (90th percentile) of all American children walking.

How to Improve Your Straw Walk

Study the High and Low Performance Factors to the right. Which Low Performance Factors in your lifestyle could you improve on?

Low Performance Factors:	For High Performance:
Pacing unevenly	Maintain a steady pace
Talking while walking	Save your "wind" for breathing
Walking with arms at your side	Swing your arms to and fro
Walking with hunched-over posture	Walk tall
Being overweight	Trim down
Watching too much TV	Be more physically active
Being too tense	Relax on the walk
Poor endurance training	Practice longer walks
Using tobacco	Avoid tobacco
Eating fatty/junk foods	Eat a balanced high-carbohydrate diet

Your Second *Straw Walk*

Do you think that you can improve on your first *Straw Walk* Score? Remember, to do well in the *Straw Walk*: (1) relax at the start, (2) pace yourself from the beginning, (3) swing your arms, (4) avoid conversation, (5) stay on the inside lane and (6) give yourself an easy walking warm-up and cool-down.

Comparing Your Straw Walk Scores

First Straw Walk Score = ____.____ Heart Rate = ____ bpm

Second Straw Walk Score = ____.____ Heart Rate = ____ bpm

Straw Walk Mathematics

Converting Your *Straw Walk* Score to *Lap Time*

To calculate your *Straw Walk* score, *add* together the number of straws you collected in 15 minutes (Column 1) *and* the fraction of the last lap you completed (Column 2). The sum is your *Straw Walk* score (Column 3) which also tells you your average walking speed (Column 4) in *miles per hour.* Columns 5 & 6 tell you *how long* it would take you to walk ¼ mile and 1 mile, respectively.

(Column 1)	(Column 2)	(Column 3)	(Column 4)	(Column 5)	(Column 6)
No. Straws In Hand	The Tenth Marker Closest To Where You Finished	Straw Walk Score	Average Walking Speed	¼ Mi. Time (1 Lap) (min:sec)	1 Mi. Time (4 Laps) (min:sec)
3 Straws	0/10	3.0	3.0 MPH	5:00	20:00
3 Straws	1/10	3.1	3.1 MPH	4:50	19:20
3 Straws	2/10	3.2	3.2 MPH	4:41	18:45
3 Straws	3/10	3.3	3.3 MPH	4:32	18:10
3 Straws	4/10	3.4	3.4 MPH	4:25	17:40
3 Straws	5/10	3.5	3.5 MPH	4:17	17:08
3 Straws	6/10	3.6	3.6 MPH	4:10	16:40
3 Straws	7/10	3.7	3.7 MPH	4:03	16:12
3 Straws	8/10	3.8	3.8 MPH	3:56	15:46
3 Straws	9/10	3.9	3.9 MPH	3:50	15:22
4 Straws	0/10	4.0	4.0 MPH	3:45	15:00
4 Straws	1/10	4.1	4.1 MPH	3:40	14:38
4 Straws	2/10	4.2	4.2 MPH	3:34	14:16
4 Straws	3/10	4.3	4.3 MPH	3:29	13:57
4 Straws	4/10	4.4	4.4 MPH	3:24	13:37
4 Straws	5/10	4.5	4.5 MPH	3:20	13:20
4 Straws	6/10	4.6	4.6 MPH	3:15	13:02
4 Straws	7/10	4.7	4.7 MPH	3:12	12:45
4 Straws	8/10	4.8	4.8 MPH	3:07	12:30
4 Straws	9/10	4.9	4.9 MPH	3:03	12:15
5 Straws	0/10	5.0	5.0 MPH	3:00	12:00
5 Straws	1/10	5.1	5.1 MPH	2:56	11:45
5 Straws	2/10	5.2	5.2 MPH	2:53	11:32
5 Straws	3/10	5.3	5.3 MPH	2:50	11:20
5 Straws	4/10	5.4	5.4 MPH	2:46	11:07
5 Straws	5/10	5.5	5.5 MPH	2:43	10:55
5 Straws	6/10	5.6	5.6 MPH	2:40	10:42
5 Straws	7/10	5.7	5.7 MPH	2:38	10:32
5 Straws	8/10	5.8	5.8 MPH	2:35	10:20
5 Straws	9/10	5.9	5.9 MPH	2:32	10:10
6 Straws	0/10	6.0	6.0 MPH	2:30	10:00

Homework — Workshop 3

Comparing Your Two Straw Walks

Part (A) Answer the following questions.

Question 1 Did your *Straw Walk* score improve? _____ YES _____ NO. If you answered YES, what factor(s) do you think made the biggest difference?

_____

_____

_____

Question 2 *Setting Your New Fitness Walking Goal.* Turn back to page 12 and compare your **Two** straw walk scores to the **Straw Walk Fitness Scale.** Now ask yourself: "What percentile rank and Straw Walk Score would I like to achieve by the end of this Walking Wellness course?" Enter your goal below:

My goal is to reach ____.____ for a *Straw Walk* score which would rank me at the ____ percentile level for all school children in America.

Question 3 *Improve Your Straw Walk Score.* Study the *high* and *low performance factors* shown on page 12. Then think about your health habits and your walking program. What specific steps will you take to achieve your new Straw Walk goal?

Step (1) _____

Step (2) _____

Step (3) _____

Step (4) _____

Part (B): Read pages 15–17 to prepare for Workshop 4.

★ ★ ★ **End of Workshop 3** ★ ★ ★

WORKSHOP

4

Teamwalks

The art of teamwork: This team of students at Fort River Elementary School is trying to figure out whether they need to slow down or speed up to average 3.5 mph during their *Teamwalk*. Are they listening to each other well? Do you know how to walk 3.5 mph?

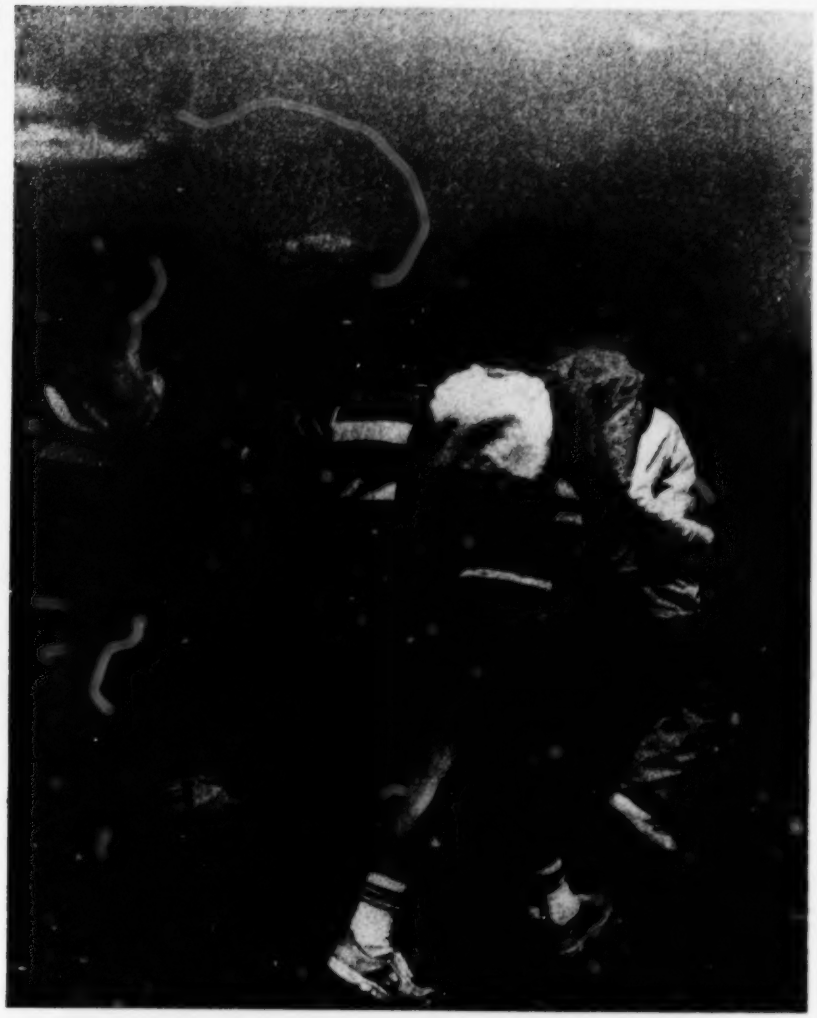
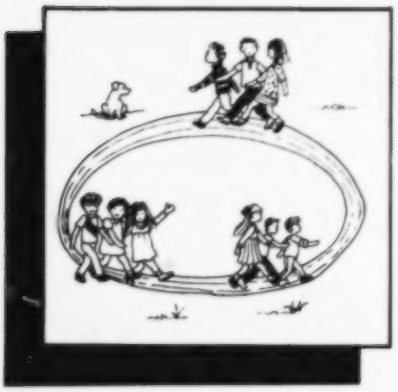


Photo by Fort River Elementary School.



Teamwalk

How Fast Is a 3.5 MPH Walk? If someone walked up to you and said: "Show me how to walk three and a half miles in one hour," what would you do? By the end of this *Teamwalk* workshop you should be able to show anyone how to walk 3.5 MPH!

Why is 3.5 MPH Walking Important?

Would you believe 3.5 MPH walking is the most *practical* type of walking for nearly everyone? Why? At 3.5 MPH, most people can walk long distances without tiring or getting sore muscles. It is a great pace for hiking or walking to school or getting around without becoming exhausted or out of breath. A 3.5 MPH walk is a comfortable pace, yet it is still good enough to qualify as *aerobic exercise* . . . and without the sweat too!

Working in Teams

Besides learning how to walk 3.5 MPH, this workshop teaches you the importance of *teamwork*. Good *teamwork* takes good *listening*. To do well in this workshop, you will need to cooperate and listen to your teammates.

Your New Team The colored card that your teacher hands you will tell you your team: **Red . . . Orange . . . Yellow . . . Green . . . Blue.** As soon as you find out your team color, move to your team position as shown below.

Team Formations: Lining up on the Straw Walk Course

Blue Team | **Green Team** | **Orange Team** | **Yellow Team** | **Red Team**

STRAW WALK COURSE | **Start Line**

Your Team Goal Your team goal is to walk *one lap* of the *Straw Walk* course at a 3.5 MPH pace! The "trick" is to cooperate as a team to figure out the perfect pace. The whole idea is to keep discussing your pace as you walk.

"Are we going too fast for 3.5 MPH?" . . . "Too slow?" . . . "Or are we right on target?" Remember, your team must stick together as a unit!

Keeping Score All team members should keep their own score. First begin by recording your *start time*. When you complete your lap, record your *finish time*. Subtract your *start time from your finish time* to find *your lap time*.

The **Teamwalk**: 3.5 miles per hour. *

* a perfect score is a 4 minute, 17 second lap.

Lap 1 ⟶	Start Time ____ : ____	Finish Time ____ : ____	Lap Time ____ : ____
Lap 2 ⟶	Start Time ____ : ____	Finish Time ____ : ____	Lap Time ____ : ____

After Finishing Lap 1 Immediately calculate your *lap time* and huddle as a team to discuss your *team performance*. (1) How can you improve as a team? _____
(2) Was everyone heard, or did anyone feel left out? _____
(3) Be prepared for your second 3.5 MPH Teamwalk!

Doing the Teamwalk at 4.0 miles per hour

In the 3.5 MPH Teamwalk (above), you discovered the feeling of walking at a 17 minute-per-mile pace. You also learned about team communications. Now you will have a chance to apply your learning in a more challenging walk at 4 MPH. This means you will need to "shave" 32 seconds off your 3.5 MPH lap time to maintain a 4 MPH pace on the Straw Walk course. As you walk, think about how much more energy is required to walk at a 15 minute-per-mile pace. Once again, keep up the great teamwork and record your scores for each lap (1 and 2) below.

The **Teamwalk**: 4.0 miles per hour. *

* a perfect score is a 3 minute, 45 second lap.

Lap 1	Start Time ____ : ____	Finish Time ____ : ____	Lap Time ____ : ____
Lap 2	Start Time ____ : ____	Finish Time ____ : ____	Lap Time ____ : ____

After Finishing Lap 2 After recording your *lap time*, huddle as a team to discuss your performance. Start discussing **Part A** of your homework.

Homework — Workshop 4

Part (A) Answer each question below in the space provided.

(1) In both the 3.5 and 4.0 MPH Teamwalk, did your team do better on its second attempt (Lap 2)?_____ . If so, why? _____ .

_____

(2) How did you compromise when there was disagreement about how fast to walk?

_____

(3) Did you personally feel that you had a "say" in how fast your team walked? ____ YES ____ NO. How many times each lap were you responsible for changing the pace? Did you listen to others on your team? ____ YES ____ NO.

(4) If you could do this exercise again, what would you do differently to help your team?

_____

Part (B) Circle the best answer to each question below.

(5) The purpose of this *Teamwalk* workshop was:

(a) To learn how to walk 3.5 MPH and 4.0 MPH.
(b) To see how fast you could walk.
(c) To learn to work in a group.
(d) To do better than the other team.
(e) Both (a) and (c) above.

(6) You probably felt part of your team if:

(a) You had some say in determining pace.
(b) You listened to others.
(c) Everyone on your team did their own thing.
(d) You controlled everything.
(e) Both (a) and (b) above.

Part (C) List below the difference that you felt walking at 3.5 MPH versus 4.0 MPH :

At 3.5 MPH, I felt _____
At 4.0 MPH, I felt _____

Part (D) Read pages 19–23 to prepare for Workshop 5.

★ ★ ★ End of Workshop 4 ★ ★ ★

WORKSHOP

5

Walking in Rhythm

Photo by Joanne Wilek

Good *Arm Swing* gives your body a natural walking rhythm and sense of balance. With this you can walk longer distances without tiring. Your arm swing will also give your upper body muscles a good workout.

Which students are letting their arms swing freely to help balance their walking stride? Judging from *left* to *right:* 1st student is good, but left arm could be in closer to body; 2nd and 3rd students are very good; 4th student is good, but head could be more upright; 5th, 6th and 7th students are good; 8th student is good, considering he is turning around to talk.

Walking in Rhythm

Natural Walking Walking is natural. Is it not? You know how to walk. You swing your arms forward and backwards, and step along. What could be simpler? It's like breathing; you hardly have to think about it. You just do it. It just happens.

Why Swing Your Arms When Walking? Yet there is more to walking than we might think . . . the way our legs move with each arm swing. Right arm forward—right leg back; left arm forward—left leg back. Heel, toe, . . . heel, toe. Right, left . . . right, left. With each step your arms swing like the pendulum of a grandfather clock. What does this *arm swing* do for us? First, it helps us balance our bodies. Actually it's like walking a tightrope with a balance bar. Take away that balance bar from the tightrope walker, and all of a sudden his body starts shaking and swaying. The arms are really a walker's balance bar. Besides providing balance, your arm swing sets the timing of your step. The faster your arms swing—the faster your step. With this motion more power is added to your walking stride.

In summary, *swinging your arms* helps you by:

(1) Improving your *balance*
(2) Setting your *timing* and *rhythm*
(3) Adding to your *power*
(4) Reducing your fatigue

Walking in Rhythm In this workshop you will be experimenting with *3 different walking motions during 3 separate walks:*

(1) *No arm swing walk* (hands clasped in front or in back of you)
(2) *Easy arm swing walk* (arms swing naturally at your side)
(3) *High-energy arm swing walk* (arms swing fast and forcefully)

During each of these 3 walks you are to keep score of your lap times, so you can compare the difference *arm swing* makes in walking performance. Record your *lap times* for each style.

Walk 1

The no arm swing walk As you line up to start your lap of the *Straw Walk* course, practice walking a few steps with your *workbooks* held directly *in front* or directly *in back* of you. Clutch your *workbook* with *both hands.* This will prevent arm swing during this lap. It may feel a bit awkward and uncomfortable walking this way, but this will show you the value of a good arm swing.

For *one full lap* walk as fast as possible, but keep holding your workbook with *two hands.* As you complete your lap, listen for your *lap time* and record it on the *Walking In Rhythm* scorecard below. Following each lap, also record how that particular style of walking felt to you.

Walking in Rhythm

Walk #	Walk Description	¼ Mile Lap Time (minutes:seconds)	Walker's Comments
Walk 1	No arm swing	____:____	_____
Walk 2	Easy arm swing	____:____	_____
Walk 3	High-energy arm swing	____:____	_____

Walk 2

The easy arm swing walk Walk a second lap, but this time hold your *workbook* in one hand and let your arms swing freely at your side. Again, walk as *fast* as you comfortably can. Record your *lap time* and *comments* once more.

What differences did you notice between the ***no arm swing walk*** (1) and the ***easy arm swing walk*** (2)?

_____

_____

Walk 3

The high-energy, arm swing walk This time walk one lap as *fast* as possible with your arms swinging *rapidly with high-energy* at your sides. Record your *lap time* and *comments* on finishing. Was Walk 3 your fastest walk? ____YES ____NO

What was the biggest difference in how you felt in Walk 1 versus Walk 2 versus Walk 3?

_____

_____

_____

Homework — Workshop 5

Part (A) Compare your *lap times* in Walks 1, 2 and 3. Did you walk faster when you swung your arms at your sides? _____ YES _____ NO. Why do you think swinging your arms helps you walk better?

_____

_____

Part (B) This week in your neighborhood or at your school, take time out to observe 3 people who are walking. From a fair distance watch how they swing their arms. On the chart below describe their *arm swing* and *how they might improve.*

	Describe Arm Swing	Room For Improvement
Walker 1	_____	_____
Walker 2	_____	_____
Walker 3	_____	_____

Part (C) Answer TRUE or FALSE for each of the statements below by checking the appropriate space.

(1) _____ TRUE _____ FALSE Proper arm swing adds *rhythm* and *timing, balance* and *power* to the walking stride.

(2) _____ TRUE _____ FALSE As your left arm swings forward while walking, your left foot moves forward, too.

(3) _____ TRUE _____ FALSE If it took you 800 *right footsetps* and 800 *left footsteps* to walk 1 mile, then your *right and left* arms probably swung forward about 800 times each during that mile walk.

(4) _____ TRUE _____ FALSE Assume your *Straw Walk* score was 3.7 without hardly any arm-swing action in your walk. If you increased your arm-swing energy, you would expect your *Straw Walk* score to increase.

(5) _____ TRUE _____ FALSE As you swing your arms faster and harder on a walk, it is likely that your walking heart rate will decrease.

Part (D) Read pages 23–26 to prepare for Workshop 6.

★ ★ ★ **End of Workshop 5** ★ ★ ★

WORKSHOP

6

Posture Walk

Your *walking posture* speaks for you. It's your body language. A great way to improve your posture is to have someone observe you as you walk. That person can offer you the kind of constructive criticism you cannot get by looking in a mirror. What makes for good walking posture? How is your walking posture?

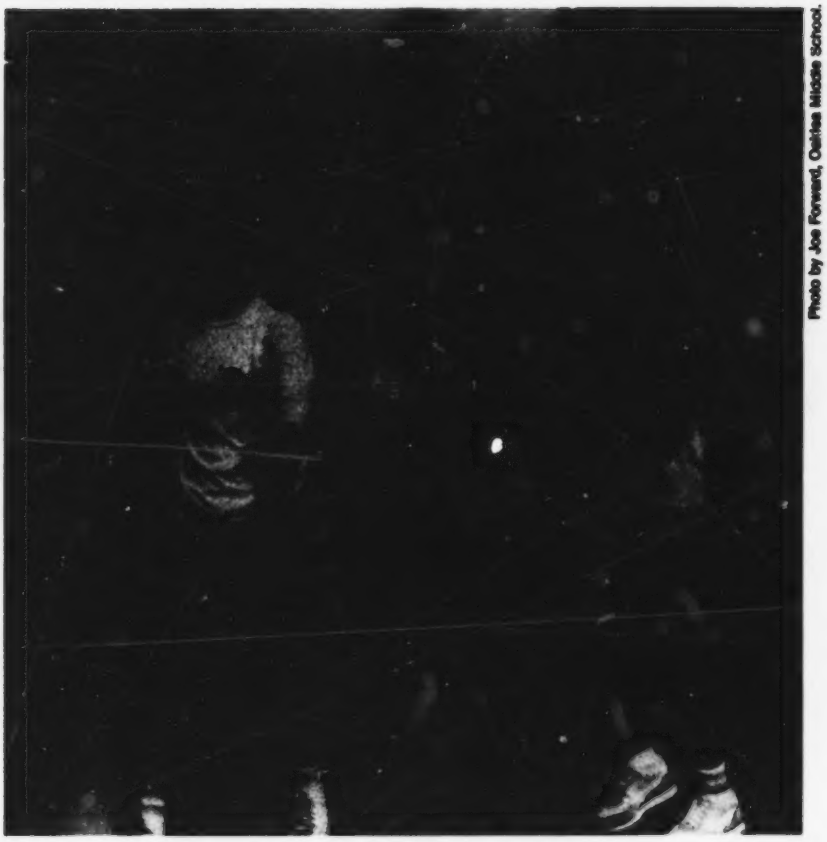
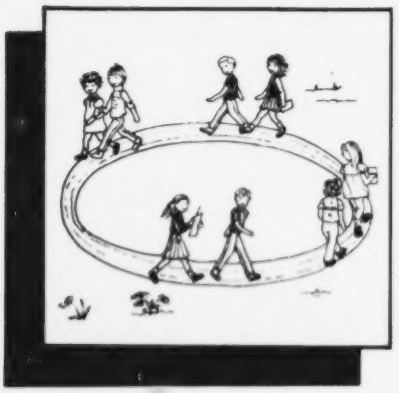


Photo by Joe Forward, Oakiea Middle School.



Posture Walk

How's Your Body Language? The way you walk is the way your body talks. Your walking posture is a form of body language. Walking slouched or bent over conveys a *low-energy, dull, depressed, sad* mood. On the other hand, walking upright with head focused straight ahead conveys a positive, alert, and upbeat mood. People read you by your walking posture. So why give off *negative vibrations*. Walk with good posture, and let people see the best in you!

Good Posture Makes a Good Walker Walking posture does more than convey your image and tell your story. It affects your walking performance. People with poor posture tire faster. They walk slower, and their muscles become sore easily. They also walk inefficiently, wasting energy. The *good news* is that we can all *improve* our walking posture. All we need to do is practice the *Six Posture Pointers*.

Points of Posture

What makes for good walking posture? Here are 6 basic posture pointers which will help tune-up your *walking machine*.

Pointer 1 Walk with your head level—*not* up, *not* down, *not* off to either side—just straight ahead. You should be able to balance a book on your head while walking.

Pointer 2 Walk with level shoulders and a level trunk—not like the Leaning Tower of Pisa.

Pointer 3 Swing your arms front to back with your elbows in close to your sides.

Pointer 4 Walk *tall!* Keep an erect posture with a straight back. Avoid slouching like an ape.

Pointer 5 Point your feet straight ahead in the direction of travel as if walking a balance beam.

Pointer 6 With each footstep, land on your heel . . . then roll on the ball of your foot . . . and push off on your toes. This is called *heel-toe walking*.

Walking With a "Buddy" Split into teams of 2 by picking a *walking buddy*. While one of you walks (*the walker*), the other will walk alongside and observe (*the observer*).

Hint For the Walker: Just walk naturally. **Hint for the Observer:** Check out your buddy from all angles . . . front, back, side. Record your observations below.

	Name of Walker _____	**Name of Observer** _____
1st Half	1 Head level? _____	4 Body tall and erect? _____
of Posture	2 Shoulders level? _____	5 Feet straight ahead? _____
Walk 1	3 Arm swing straight? _____	6 Heel-toe action? _____

Halfway around the *Straw Walk* course you and your buddy should *stop! The observer* must critique *the walker's* posture. Both of you should take notes (use chart above). Now *the walker* becomes *the observer* and vice versa for the last half of Lap 1. On finishing Lap 1, *the observer* should comment. Both of you are to take notes below.

	Name of Walker _____	**Name of Observer** _____
2nd Half	1 Head level? _____	4 Body tall and erect? _____
of Posture	2 Shoulders level? _____	5 Feet straight ahead? _____
Walk 1	3 Arm swing straight? _____	6 Heel-toe action? _____

Posture Walk 2 In *Posture Walk 2*, you will walk with your same buddy. Repeat your roles as *walker* and *observer. This time focus on improvement*. As in Lap 1, STOP at the halfway point to take notes and critique. Then switch roles.

Did your buddy really improve? Be honest! Write your comments here. _____

Did your posture improve in the second walk? Write your buddy's comments here. _____

Posture Walk 3 Think about what you have learned about *your posture*. Now, can you apply this to improve your walking? Your goal is to set a new personal record by walking your *fastest lap* by improving on just one point of your posture.

Posture Walk 3 lap time = ____:____(minutes:seconds)
Best lap time from Workshop 5 (page 21) = ____:____

Final Questions Did changing your posture improve your walking performance? _____ If so, how? _____

_____

Homework — Workshop 6

Part (A) It is impossible to be your own walking judge because you cannot see yourself walking. That is why it is good to have someone else observe your walking posture. In school that *someone else* was your *buddy* (*the observer*). Hopefully your *buddy* helped you, but it never hurts to get a second opinion.

For homework you are to continue your *Posture Walk*, but with a new partner. Your new partner can be your mother, father, another relative, friend, or teacher. Follow the same rules as in Workshop 6 by switching roles as *walker* and *observer*.

Before starting your *Posture Walk*, teach your new partner the *six basic pointers of good walking posture* (page 24). For the *first half* of your walk you should play *the observer*. After a few minutes of walking, explain your observations to your partner. Write everything down below. Then let your partner observe you walk. Again, after stopping, write down your partner's observations.

My Observation of _____

1 Head level? _____
2 Shoulders level? _____
3 Arm swing straight? _____
4 Body tall and erect? _____
5 Feet straight ahead? _____
6 Heel-toe action? _____

My partner's observation of me

1 Head level? _____
2 Shoulders level? _____
3 Arm swing straight? _____
4 Body tall and erect? _____
5 Feet straight ahead? _____
6 Heel-toe action? _____

Question 1 What things did your new partner tell you that were not mentioned by your buddy in school?

_____

_____

_____

Question 2 After all these *Posture Walks*, what is the *one point of posture* that you need to practice the most?

_____

_____

_____

Part (B) Read pages 27–30 to prepare for Workshop 7.

End of Workshop 6

WORKSHOP

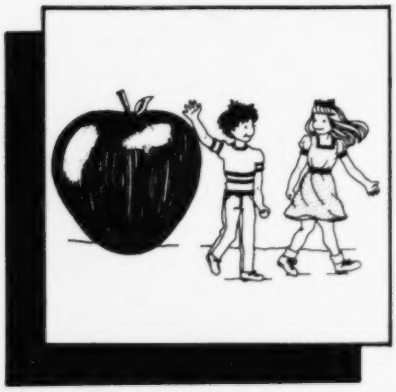
7

Walking Calories

Photo by Fort River Elementary School, Amherst, MA.

How long would you need to walk to burn off the calories contained in a carrot stick? That is what these children are discovering as they try to figure out what fraction of the *Straw Walk* loop they need to walk to burn off a carrot. If you were on *The Carrot Team,* how far would you walk to burn off a carrot?

Note: The wood castle playground in the background was built by the teachers and parents of the Amherst community based on the drawings submitted by the Fort River Elementary School children (K to 6).



Walking Calories

Walking and Calories. When you walk, your body burns 5 times more calories than when you *sit*. That is why walking helps you control your weight. However, this does not mean that we can stuff our faces with thousands of extra calories. Consider a shiny red apple. How far would you need to walk to burn it off. A half mile? 1 mile? 2 miles? What about a carrot stick or a stalk of celery?

Walking Off Your Snack Pack In this *Walking Calories* workshop you will be handed a *snack pack* containing 5 food items. For each food item, a team will be named (see chart below). Next, you will be placed on one of these teams. Your team goal is to *walk* just the *right* distance on the *Straw Walk* course to burn off the number of calories contained in your team's food item. Each team will get its turn at *walking off* its own food item.

5 Foods, 5 Teams

The M & M's (Blue)	The Celery Stalks (Green)	The Almond Nuts (Yellow)	The Carrots (Orange)	The Apples (Red)

Joining Your Team Huddle with your teammates as shown above. As you are handed your *snack pack* look inside, *but do not eat yet*. Snack time will come shortly. For now simply discuss with your teammates how far you'll need to walk to burn off your team's food item! Remember this is a *team project!*

Note In this workshop it was intended that each of you would: (a) *Receive a snack pack,* (b) *eat the snack pack food items* (one by one), and then, (c) *burn off the food calories by walking.* However, if for whatever reason, you do not feel like eating any or all of the foods in the snack pack, then do not force it. Simply pretend to have eaten the food(s) so you can complete this *Walking Calories* workshop.

Starting the Apple Walk

After everyone has had a chance to bite into their ¼ slice of apple, **The Apple Team** should now begin walking (3.5 MPH pace) around the *Straw Walk* course. As you walk, discuss how far you will need to walk to burn off the ¼ apple section. Stop when you think you have walked off the apple. *For everyone else:* Follow behind **The Apples.** When **The Apples** stop, you should stop too. Do you think **The Apples** walked the right distance? *For everyone:* Turn to the *Walking Calories Chart* on page 36. *First* fill in column 5 by counting how many $\frac{1}{10}$ markers you walked. *Next* fill in column 4 by multiplying the *number of* tenth markers in column 5 by the number 2. Why by 2? Because as it turns out, you burn 2 calories every time you walk the length of a pair of $\frac{1}{10}$ markers. The only question that remains now is: *How many calories were in the ¼ apple?* Listen to your teacher for that answer, and then fill in the correct number under column 3. Compare the calories you *ate* with the calories you *burned.* Did you have a *net gain* or a *net loss* in calories during the *Apple Walk?* _____.

The Carrot Walk

From the point where **The Apple Team** stopped, eat (or pretend to eat) your carrot stick. Then **The Carrot Team** should step forward to lead the way. Now the goal is to walk enough to burn off the carrot stick. When **The Carrots** stop walking, complete the second line of the *Walking Calories Chart.*

The Almond Nut Walk

Repeat the same procedure starting from where **The Carrots** decided to stop walking.

The Celery Stalk Walk

Repeat the same procedure starting from where **The Almond Nuts** decided to stop walking.

The M & M Walk

Repeat the same procedure starting from where **The Celery Stalks** decided to stop walking.

Walking Calories Chart

(1) Walk Description	(2) Food Eaten	(3) Calories Eaten	(4) Calories Burned	(5) Distance Walked (Number of $\frac{1}{10}$ Markers)
Apple Walk	¼ apple	_____	_____	_____
Carrot Walk	3" carrot	_____	_____	_____
Almond Walk	1 almond	_____	_____	_____
Celery Walk	3" celery	_____	_____	_____
M & M Walk	1 M & M	_____	_____	_____
TOTALS		_____(cal)	_____(cal)	_____($\frac{1}{10}$ markers)

Completing the Workshop After all 5 walks, *add up* column (3), column (4), and column (5) and record your sums on the line labeled TOTALS. Did you eat more calories than you burned off walking? Or did you burn off more calories walking than you ate?

Homework — Workshop 7

Part (A) Answer all questions below by circling the best multiple choice answer. Base your answers on this and your previous workshops.

(1) If your snack pack contained 40 calories of food, how many $\frac{1}{10}$ markers would you need to walk to burn off your entire snack pack?
(a) 2 (b) 4 (c) 8 (d) 12 (e) 20

(2) If column (4) totaled more than 40 calories, would you be on your way to *gaining* or *losing* weight?
(a) gaining (b) losing (c) neither

(3) If you burn about 2 calories every time you walk the length of a set of $\frac{1}{10}$ markers, how many calories would you burn walking 1 mile (4 laps)?
(a) 20 (b) 80 (c) 120 (d) 180 (e) 300

(4) How many laps of the *Straw Walk* course would you need to walk to burn off a 400 calorie apple pie and vanilla ice cream dessert?
(a) 1 lap (b) 2 laps (c) 5 laps (d) 10 laps (e) 20 laps

(5) One minute of walking burns about 5 calories of food. About how many minutes of walking are required to burn off your *snack packs?*
(a) 2 min. (b) 4 min. (c) 8 min. (d) 10 min. (e) 20 min.

Part (B) Read pages 31–33 to prepare for Workshop 8.

★ ★ ★ End of Workshop 7 ★ ★ ★

WORKSHOP

8

Meal-Walk

Consider what you are eating as well as how much!

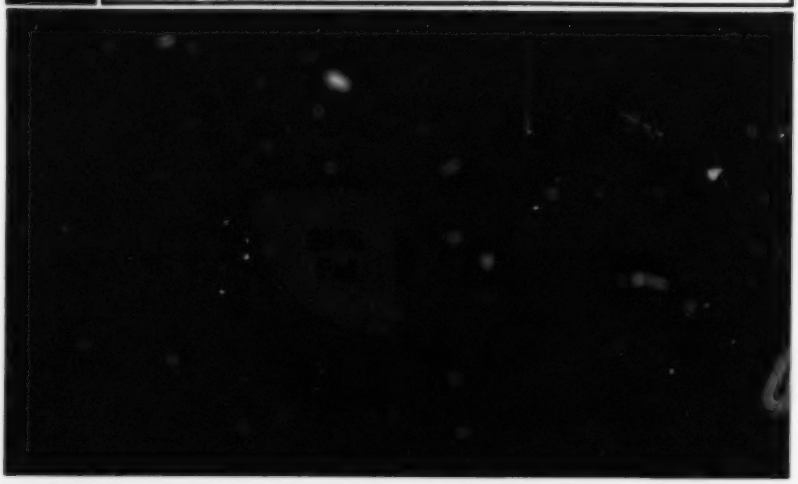
Most fast food chains cook their french fries, chicken and fish in beef tallow** which is very high in saturated fat—the kind of fat associated with high cholesterol levels, plugged and hardened arteries, heart disease and stroke. A 300 calorie portion of french fries, fried chicken, or fried fish could easily be dripping wet with 150 calories of these saturated fats.

Actually you would be better off eating a home-cooked meal of steamed vegetables and salad with broiled fish, poultry or lean beef, than to swallow the fast food tallow.

As Daniel Levy, director at the Framingham Heart Study, said: "For many, fast foods are a way of life—and a way of death."

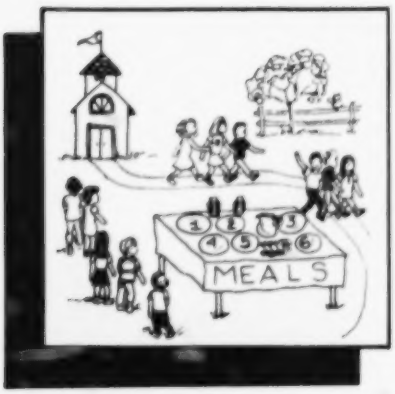
**Hopefully the fast food industry will change its recipes by cooking with polyunsaturated oil instead of beef tallow in the near future.

BALANCED DIET



IMBALANCED DIET*

*Percentages represent average fried food compositions based on 1985 (and prior) fast food meals.



Meal-Walk

A Review of Walking Calories In the *Walking Calories* workshop you discovered that walking 1 lap of the *Straw Walk* course burns 10 × 2 or 20 calories. By walking 4 laps (1 mile), you spend about 4 × 20 or 80 calories of energy.

Watch Out for *Fat* Calories!

Besides the *number* of calories, we must watch the *types* of calories we consume. Our bodies need *carbohydrates*, *protein*, and *fat* to survive. A balanced diet consists of 15% protein, 60% carbohydrates, and 25% fat. Unfortunately, most Americans consume 40% to 50% of their calories as *fats*—fats that build up inside our blood vessels as hardened cholesterol. These deposits can block our blood vessels, cause heart attacks, strokes and high blood pressure. Close to 1 million Americans die each year from these **Cardiovascular Diseases** —diseases of the heart (cardio) and blood vessels (vascular). *What can you do about it?* First, learn the meaning of the Spanish verb **SABER** which means *to know.*

S tay away from fatty foods.
A void tobacco.
B lood pressure—control it!
E xercise and walk often.
R educe excess weight.

What's more Important: Exercise or Diet?

They both are important, but look at it this way. You can exercise your body into great shape, but if you eat improperly, you will lose your health. It does not matter how good of a car you own; if you put poor fuel in the gas tank, it will not run right. The *worst* kind of *fuel* for your *gas tank* is *fast food* fried in animal fat and most *fast foods* in general, including greasy burgers. These foods are loaded in saturated fats which cause your blood vessels to become coated and plugged with hardened fat deposits. Eat enough of these greasy fried foods, and by age 11 some fatty deposits will already be forming in your arteries!

Besides the fats, so many of the fast foods are loaded with *sodium* (also found in table salt). High-sodium diets are linked to high blood pressure—a disease destroying the blood vessels of over *40 million* Americans today. So next time you get a hunger pang, think of your heart as you make your food choice. That *choice is still yours.*

The Right Meal Choice

Again you will be working in teams—the *same teams* as in Workshop 7. Assemble along the *Straw Walk* course as shown below.

The M & M's | **The Celery Stalks** | **The Almond Nuts** | **The Carrots** | **Apples**

In this exercise you will each walk 1 mile (4 laps) on the *Straw Walk* course. During that mile you and your teammates are to pick the *best (healthiest) meal* to *replace the calories you burned while walking*. Your *choices* are shown below.

Choice 1	⅓ of a Big Mac	Choice 5	½ cup chocolate milkshake
Choice 2	⅓ Whopper	Choice 6	1 cup peas, carrots, broccoli
Choice 3	a small french fries	Choice 7	3 fried chicken nuggets
Choice 4	½ plain baked potato	Choice 8	a fried fish sandwich

Hint Two things you might consider before making your final choice are: (1) ***total calories*** and (2) ***percent fat!***

As you walk discuss each choice, and try to narrow down the field so that by the end of the mile your team has reached agreement on your *best meal*. When you complete your mile, huddle back at the *start line* and *fill in* the chart below. Then be prepared to discuss and defend your team selection.

The Right Meal Choice

Your team name: _____

Your teammates: _____, _____, _____,

_____, _____, _____.

Distance walked: _____ mile(s). Calories spent: _____ calories.

Your team's first choice: _____ Your personal first choice: _____

Why did your team decide on its choice? _____

If by yourself, would you have decided differently? _____

Explain your own reason. _____

Homework — Workshop 8

Part (A) Carefully study the chart below. Based on this information, answer questions 1 through 5.

Fast Food Nutritional Report Card*

Food Description	Total Calories	Fat Calories	Sodium (milligrams)	Minutes of Walking to Burn off
1. Big Mac	563	295	1010	112
2. Whopper	670	340	975	134
3. French fries	210	100	100	42
4. Baked potato (no topping)	250	17	60	50
5. Chocolate shake	400	120	260	80
6. Raw salad of peas, carrots, broccoli, etc. (1 cup)	80	0	60	16
7. Fried chicken	310	160	700	62
8. Fried fish sandwich	430	222	780	86

*SOURCE: American Council on Science and Health and The Chicago Sun-Times. Based on 1985–86 data.

Question 1 Whether you eat fried chicken, fried fish, burgers or french fries at a typical fast food place, you are eating *poorly* because all of these foods contain:

(A) Too much fat
(B) Too much cholesterol
(C) Too much sodium
(D) Too many calories
(E) All of the above

Question 2 To burn off a meal consisting of a Whopper, fries, and a milkshake, you would need to walk for about:

(A) ½ hour
(B) 1 hour
(C) 2 miles
(D) 4 miles
(E) 4 hours

Question 3 Which statements below are true?

(A) Most fried fast food is loaded with fat.
(B) Fried chicken or fried fish can have more fat than a lean piece of meat.
(C) Raw vegetables are generally low in fat and sodium.
(D) Foods high in fat are generally fattening.
(E) All of the above.

Question 4 To help keep your arteries clean:

(A) Avoid fried, greasy foods.
(B) Avoid saturated fats.
(C) Keep up your walking.
(D) Avoid tobacco.
(E) All of the above.

Question 5 Name at least 4 *very fatty, greasy, high-cholesterol foods you would now be willing to cut out of your own diet forever!*

(1) _____ (3) _____ (5) _____

(2) _____ (4) _____ (6) _____

Part (B) Read pages 35–38 to prepare for Workshop 9.

★ ★ ★ End of Workshop 8 ★ ★ ★

WORKSHOP

9

Walking Off Weight

Photo by Patsy Almy.

The Whitney Creek Country Schoolhouse sits in the middle of an open cattle pasture in eastern Montana. When the students go outside to play for morning recess, the cows move out of the schoolyard and the children play. With their teacher, they often walk ¼ mile down a dirt road where they about face at a cattle grate crossing.

Sitting at their lift-top desks in the Whitney Creek Schoolhouse, these students burn up *1* calorie per minute. Walking on this country road, they burn about *5* calories per minute. That is why walking helps you control your weight. Just 15 extra minutes a day of walking can help you lose 7 pounds in a year without dieting!

Pictured are 1st grade: Richard, Scotti and Jeremy; 2nd grade: Melissa; 3rd grade: Tim and Matt; 4th grade: Tom; 5th grade: Robert; 6th grade: Tanya; 7th grade: Melvin; and teacher Ms. Jolene Langin and her 3-year-old Alaskan Malamute dog.

Walking Off Weight

Walking for Weight Control A great way to reduce weight is to *walk*. The longer you walk, the more fat you burn up. Even *easy-walking* burns fat well. In fact if you're overweight, it's better to take *long easy walks* than *short fast walks*, because the *easy walks* will not exhaust you rapidly. Besides, they are safer. However, *very slow walking* can be more tiring than *easy walking*. *Very slow walking* barely burns up enough fat. At a 2 MPH turtle's pace, it would take you 24 hours to walk off a pound of fat. For best results, walk at a *steady, comfortable pace* . . . not too fast, not too slow. Walk between 3½ and 4 MPH.

The Walk-Off-Weight Game

Most of you probably do not need to lose weight, but just for this exercise let's pretend you do—8 pounds worth of weight, in fact. Here's how the *game* works. First you will be assigned to 1 of 3 teams. Each team will be given 8 *straws*. Each *straw* represents 1 of the 8 pounds you need to lose. Each time you and your teammates complete a lap you will have an opportunity to lose *weight* by handing your teacher either 1, 2, or 3 straws. The number of straws you get to shed is based on how fast your team looped the *Straw Walk* course.

The Game: Walk-Off-Weight

Orange Team **Yellow Team** **Red Team**

Rules of the Game

Case 1 If you walk slower than 3.5 MPH (4:17 lap time), you shed only *1* straw (1 pound) and your team gets to continue walking. **Case 2** If you walk between 3.5 and 4.0 MPH (4:17 to 3:45 lap time) you shed 2 straws (2 pounds) and your team gets to continue walking. **Case 3** If you walk over 4.0 MPH (3:45 lap time) you shed 3 straws (3 pounds). *However,* you will be asked to sit out 1 *whole lap* during which you will gain 1 straw for being inactive. Such sitting will *not* let you reach your 8-straw goal.

Your Walk-Off-Weight Goal

Since your goal is to lose 8 pounds in 4 laps, you and your team need to walk between 3.5 and 4.0 MPH to consistently lose 2 straws (2 pounds) each lap. Funny how in real life it works the same way—slow, steady, consistent weight loss. Remember, if you walk too slow, your team will not lose enough weight. If you walk too fast, you may do well that first lap (minus 3 straws) . . . but you will also be *benched* at the end of that lap. The trick is to walk somewhere between 3.5 and 4.0 MPH. This way you can keep *shedding* 2 straws each lap to reach your goal of losing 8 straws in 4 laps.

Teamwork Do you remember how you and your teammates worked together in the *Teamwalk* (Workshop 4)? That kind of teamwork is critical here, too. So discuss how fast your team should be walking. Once again remove your wrist watches to avoid the temptation of checking your lap time. Your teacher will keep track of time for you. You and your team only need to focus on your *walking pace.* (*Remember: Your goal is to keep moving and not to be* ***benched.*** *If you walk* ***slower than 3.5 MPH or faster than 4.0 MPH,*** *you will not make your* ***8 straw*** *goal.*

Record Your Lap Times

Lap 1	Start time ____:____	Finish time ____:____	Lap time ____:____
Lap 2	Start time ____:____	Finish time ____:____	Lap time ____:____
Lap 3	Start time ____:____	Finish time ____:____	Lap time ____:____
Lap 4	Start time ____:____	Finish time ____:____	Lap time ____:____

Lap times: 4:17 or more . . . Shed 1 straw 3:45 to 4:17 . . . Shed 2 straws
3:45 or less . . . Shed 3 straws, but sit down.

When You Pass Go! As you approach the finish of each lap, listen carefully for your *finish time.* Quickly record your *lap time.* Hand your teacher 1, 2, or 3 straws based on your lap time.

After Your 4th Lap Huddle back at your original team spot and begin discussing your team performance. Answer the questions below.

(1) How many pounds (or straws) did your team lose? _____

(2) Did you function well as a team together? _____

(3) What could you have done better? _____

(4) What does this lesson prove to you? _____

Homework — Workshop 9

Part A

It takes about *one calorie* per minute of human energy to keep a pair of eyeballs focused on the TV. Unglue yourself from the TV, rise up, start walking, and all of a sudden your body starts burning *five calories* of fuel per minute. That's *400%* more fuel than when sitting! That is why *walking* helps you lose weight.

You need to burn up an extra *3500 calories* of *stored food* to shed *one pound* of *body fat*. For each ½ hour of walking you substitute for TV, you burn up about an extra 120 calories. The average student watches *27 hours* of *TV per week*. How much TV would you be willing to give up in favor of *walking* for your health?

Your homework assignment for this week is to keep a **Walk-Instead-of-TV Log.** This will be your personal journal. The way it works is simple. Every time you substitute **walking** for a **TV show**, you record it below. This way you can tell just how many extra calories of fat you have burned off. Before you start, set a *calorie goal* for the week. Could you give up *3 hours* of TV for *walking* this week? That's a 720 calorie loss or about *⅕ pound of body fat!*

Your Goal = _____Calories

Walk-Instead-Of-TV Log

Day	Date	(1) TV Show Given Up	(2) Time Walked Instead of TV	(3)* Calorie Difference
Day 1	__/__/__	_____	_____ minutes	_____ cal.
Day 2	__/__/__	_____	_____ minutes	_____ cal.
Day 3	__/__/__	_____	_____ minutes	_____ cal.
Day 4	__/__/__	_____	_____ minutes	_____ cal.
Day 5	__/__/__	_____	_____ minutes	_____ cal.
Day 6	__/__/__	_____	_____ minutes	_____ cal.
Day 7	__/__/__	_____	_____ minutes	_____ cal.
		Walking Totals =	_____ **min.** × 4 =	_____ **cal.**

*To fill in column (3), multiply the number in column (2) by 4. That is *how many more calories* you burn each minute you *walk* instead of *watch TV.*

Did You Make Your Goal? _____ Add up column (3), and compare it to *your goal*. If you keep this up for the year, how many extra calories would you burn in 52 weeks? _____. **Hint:** Multiply your colum (3) total by 52!

Final Question How many pounds would that be per year? _____.
Hint: Divide total calories by 3500 since there are 3500 calories in 1 pound of stored fat.

Part (B)

Read pages 39–41 to prepare for Workshop 10.

★ ★ ★ **End of Workshop 9** ★ ★ ★

WORKSHOP

10

Tobaccoless Road — PART 1

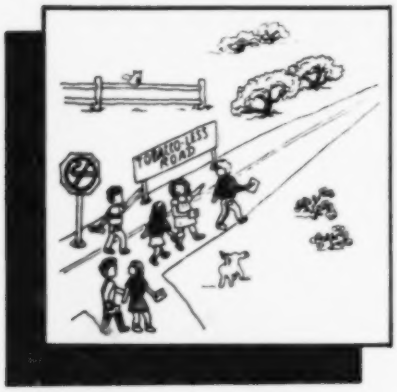
On the left: An inside view of the clean, healthy artery of an 11-year-old boy who never touched tobacco.

On the right: The same artery (hardened with plaque) in the body of a 50-year-old woman who started smoking early in life.

The main point: Nicotine from cigarettes or chewing tobacco destroys your blood vessel walls.

Question: How will your arteries look 5, 10, or 20 years from now?

Photo by L. H. Lonergan.



Tobaccoless Road—Part 1

Tobacco—A Killer Tobacco is the biggest *killer* in America. Research now shows that tobacco causes 300,000 American deaths each year! Yet the American tobacco industry still spends $2 Billion a year on advertising to get us to buy a product that causes *heart disease* and *cancer.* Their advertising glamorizes tobacco, but the *real truth* about *tobacco* is proven:

Smoking causes *lung cancer, heart disease, emphysema, and childbirth defects.* Chewing tobacco, also containing tars and nicotine, causes cancer and heart disease.

Think about it: 300,000 dead Americans because of tobacco. Such waste and suffering. Worse yet, tobacco can effect you even if you do not smoke. When you sit in a room filled with stinky tobacco smoke, you breathe the smoker's poisonous air. It contains *carbon monoxide*—the same deadly gas that shoots out of the exhaust pipes of cars and buses. *Carbon monoxide* goes through your lungs and into your blood where it poisons your red blood cells—starving them of *oxygen.* That is why smokers get winded walking up one flight of stairs. By breathing in a smoke-filled room, you can suffer from sore throats, headaches, inflammed eyes, sinus congestion—not to mention the more serious, long-term cancer risk. (Estimates now show that thousands of non-smoking Americans die of lung cancer from the effects of this secondary tobacco smoke). This whole issue goes well beyond the *health of smokers; it affects your health too!*

What You Can Do To Help Yourself

First focus on yourself. If you stay *free of tobacco the rest of your life, you will: (a) have the best chance to stay healthy; (b) help kill the tobacco industry;* and *(c) set a good example for others.*

Think About This The American Tobacco Industry's only hope for the future is *you.* If *all* the children of America grow up hating tobacco, then who will the tobacco people sell to in the year 2000? No one! That is the point. *You* are in control. *You* can kill tobacco before it kills *you!*

Saving Money Besides, think of all the money you'll save! A pack-a-day smoker spends $20,000 on cigarettes in a lifetime of smoking. If that $20,000 was earning interest in the bank, it would be worth $40,000 in your retirement bank account. What could you do with $40,000? How many smokers do you know that burn up $40,000 in a lifetime to destroy their lungs and hearts?

How Can You Help Someone Else?

About 50 million American adults smoke or chew tobacco. Also, about 50 million children *do not* use tobacco. *Think about this:* What if *every child* could convince just *one adult tobacco-user to quit?* We could free America of our biggest health problem. *Would you be willing to help one person quit tobacco?*

Starting Down Tobaccoless Road How often have you asked a close relative or friend to quit smoking, only to hear them respond, "I'm trying"? In one ear and out the next. Yet the *written word* is different. What if you put your thoughts down on paper in a letter to that person? That would make a much stronger impression because it shows that you are concerned enough to take the extra time to write. Yes, one letter could make the difference!

Writing your Letter Your goal in this workshop is to use walking as an exercise to help you compose thoughts for a letter you will *write* and *deliver* to a tobacco-user as part of your homework. Again, you will work in teams, but each of you will be required to write your own personal letter.* Use your 1-mile team walk to discuss to *whom you want to write,* and *what you want to say.*

***Note:** 4 teammates should identify 4 people to whom they want to write. However, if several of you identify the same party, then you can write personal letters to that party.

Hints In choosing a tobacco-user, think about someone you really care about—a relative, a teacher, a good friend. In your letter just be yourself. Be honest. Tell why you are concerned. Try to offer some help. Sincerity is your greatest tool.

Taking Notes

Use the space below to write down your ideas *before* and *after* your *Tobaccoless Road* walk.

(1) List your teammates. _____, _____, _____,

_____, _____, _____, _____.

(2) Who will you write to? _____.

(3) How will you show you care? _____

_____

(4) What would you be willing to do to help that person quit? _____

_____

(5) What good ideas did your teammates mention? _____

_____

Homework — Workshop 10

Your assignment is to:
(A) *Write* and *deliver* a letter to your chosen tobacco-user
(B) *Follow-up* on your letter by making sure you get a *response*
(C) *Be prepared* to discuss that response in your next workshop

Part (A)

Preparing your letter Make your letter *neat*. Make it look like you care! Write from your heart. Your sincere words can inspire someone. Consider offering something in exchange for *quitting*, and try to close your letter by asking for a response. Consider this example:

Dear Mother,

I am so concerned about your smoking and health. I know it is tough to quit, but if you do I'll promise to wash the dinner dishes once a week for the rest of the year. Would you take me up on my offer? Please!

Sincerely,
your loving daughter

This is just one example. There are all kinds of personal sacrifices you could make to show you really care. Before you seal up your letter for delivery, copy it in the space below for your records.

Dear _____,

_____

_____

_____

_____

Delivering your letter Try to hand deliver your letter. That way you will know it reached its destination. Consider enclosing a self-addressed return envelope to make it easier for your party to respond to you. Realize that you will need to receive a response within a week, so deliver your letter—the sooner the better!

Part (B)

Follow-up for your response This may take a little doing on your part. The best way to get a response is to *ask* for one in your letter. In any event, do not hesitate to make a follow-up contact after your party has had a day or two to read your letter.

Part (C)

Preparing for Tobaccoless Road—Part 2 In the space provided below, prepare a brief outline for a short talk you will give to your classmates, and read pages 43—45 (Tobaccoless Road—Part 2).

(1) To whom did you write? _____.
(2) Why that person? _____.
(3) Describe your letter. _____.
(4) Describe the response you received. _____.
(5) How do you feel about your efforts? _____.

★ ★ ★ **End of Workshop 10** ★ ★ ★

WORKSHOP

11

Tobaccoless Road — PART 2

Life is a road full of intersections. Some roads are short and painful. Others are long and pleasurable. Read the road signs well, and have a long, healthy journey . . .
Walking Hawaii by Rob Sweetgall.

On January 28, 1985 I flew to Honolulu to include Hawaii on my 50-state walk. From the airport I walked 8 miles down Nimitz Boulevard to the old fishing pier near downtown Honolulu. An unshaven, hunched fisherman stood on the dock by a tuna boat smoking a cigarette while sipping on a can of beer. I looked into his yellowish red eyes and asked him what he was celebrating. In a raspy voice he answered, "My crew just landed a boat full of tuna in six days at sea." He pulled a piece of paper out of his stained pants. It was a check for his catch . . . $30,000. I looked at his sickly figure and thought, "All the money in the world doesn't mean a thing if you don't have your health." Later I walked down the pier, bought a 50¢ container of white rice, and sat for dinner on some lava rocks, dangling my red feet in the salty, blue-green waters of the Pacific. Some native boys paddled their outrigger canoes through the rolling waves out from the beach's surf. Their wealth was their health.

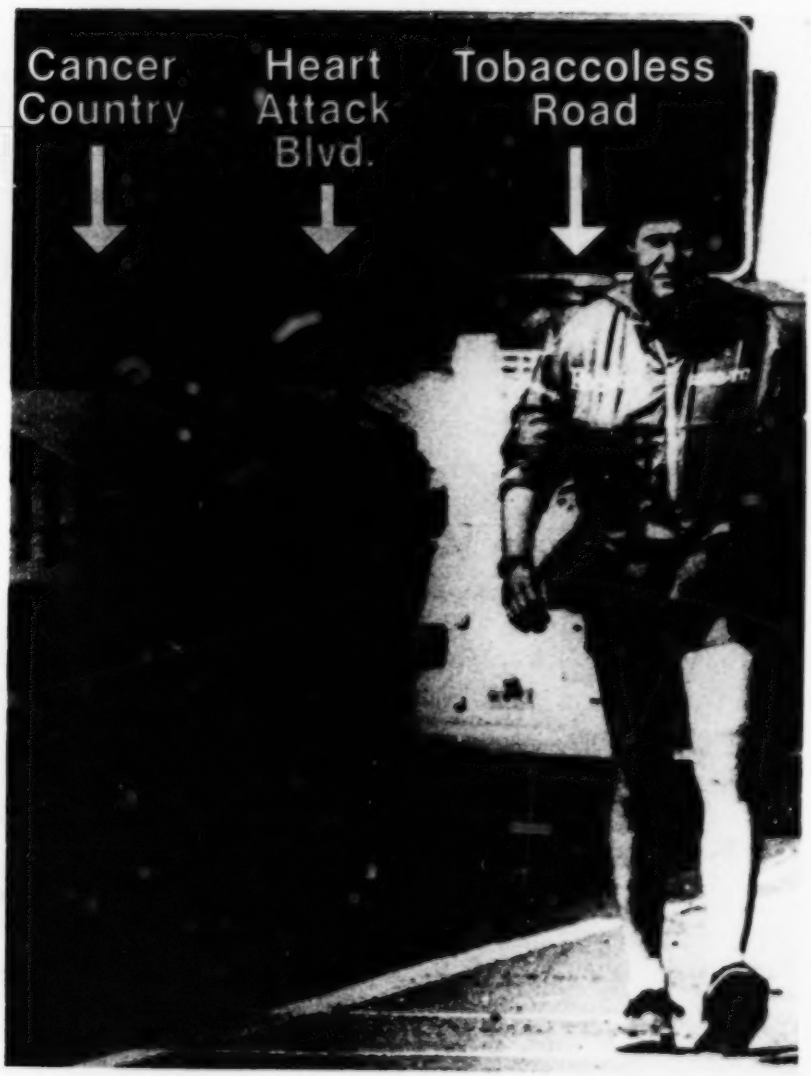


Photo by Honolulu Star Bulletin

Tobaccoless Road—Part 2

Discussing Your Letters and the Responses They Received In Workshop 10 you used *walking* to generate ideas for your *Tobaccoless Road* project. Now, with the same teammates from Workshop 10, you will have a chance to discuss *the results* of your *letters* on a follow-up walk. This walk will last *only 10 minutes*, so each of you will need to summarize your accomplishments quickly. In speaking to your teammates, focus on answering these questions.

(A) To whom did you write?
(B) What was your approach?
(C) How did you deliver your letter?
(D) How did you follow-up?
(E) What response did you receive?
(F) What did you accomplish?
(G) What did you learn?
(H) What could you do in the future to follow-up on this project?

After Your Team Walk

Regroup with your teammates and summarize the highlights of all of your speeches.

My Teammate's Accomplishments

Teammate's Name: _____ : _____

Teammate's Name: _____ : _____

Teammate's Name: _____ : _____

Teammate's Name: _____ : _____

Teammate's Name: _____ : _____

Teammate's Name: _____ : _____

Teammate's Name: _____ : _____

Elect a Team Spokesperson After five minutes of writing, quickly elect a *team spokesperson* to make a 3-minute speech summarizing your *team's accomplishments.*

Note Your team spokesperson must represent your *total team* by painting a full *picture* of your team's activity.

Listen to How Other Teams Did! As each *team spokesperson* addresses your class, listen attentively to see how they handled this project. Record any ideas that impress you in the space below.

Red team: _____

_____

Orange team: _____

_____

Yellow team: _____

_____

Green team: _____

_____

Blue team: _____

_____

Summarizing Tobaccoless Road

Think what this *Tobaccoless Road* workshop has taught you about (1) *deadly tobacco,* and (2) *writing letters* and *getting people to respond to them.* With this in mind, *what do you think are the most important things that you have learned through Tobaccoless Road Workshops 10 and 11?*

What I Have Learned

_____

_____

_____

_____

_____

_____

Homework — Workshop 11

Part (A) Answer TRUE or FALSE for each of the statements below.

(1) ____ TRUE ____ FALSE If you are in a room filled with tobacco smoke, then you also receive the harmful effects of that smoke.

(2) ____ TRUE ____ FALSE Besides causing *lung cancer,* tobacco kills hundreds of thousands by damaging blood vessels and the cardiovascular system.

(3) ____ TRUE ____ FALSE Chewing tobacco is not harmful to the body because the chewer does not breathe smoke.

(4) ____ TRUE ____ FALSE If you start smoking or chewing as a teenager, you may never be able to quit because of nicotine addiction.

(5) ____ TRUE ____ FALSE One good reason why it never pays to get started on tobacco is because it can damage your lungs, heart and blood vessels early in your life.

Part (B) List 3 reasons why you should never smoke or chew tobacco in your lifetime.

(1) _____

(2) _____

(3) _____

Part (C) If someone at school walked up to you and asked you to try tobacco, how would you respond?

_____

Explain why you would give that answer.

_____

Part (D) Are you now willing to take the Tobaccoless Road Pledge?

Tobaccoless Road Pledge

For all the reasons stated above, I, wanting to respect my body and live a long and healthy life, do hereby make a personal commitment to my health and the health of my family by promising never to use any tobacco products for the rest of my life.

X _____

(Your Signature)

Part (E) Read pages 47–51 to prepare for Workshop 12.

WORKSHOP

12

Your Planet Earth

Crossing the Continental Divide (December 5, 1985): Students from Helena and Anderson Middle Schools in Helena, Montana are getting a spectacular view of the Rocky Mountains as they walk to the top of McDonald's Pass with Rob Sweetgall. Over 6000 feet above sea level you can observe this magnificent mountain range spanning the North American Continent. When the snow caps on these mountains melt, the water flows in 2 directions. The streams trickling down the west slopes of the Rockies will eventually wind up in the Pacific Ocean. The waters running down the east slopes head toward the Atlantic Ocean. What kind of observations of your planet could you make if you crossed the Continental Divide, *or* if you went on a *nature walk* right around your own school neighborhood?

Walking in nature: These Fort River students are exploring *their planet Earth* on a *nature walk* right on their own school grounds. In an age where more and more of our planet is becoming covered with concrete sidewalks and asphalt parking lots, walking gives us the time to respect and appreciate the beautiful earth and vegetation we inherited.

Photo by Frank Shone.

Photo by Joanne Wilek.

Your Planet Earth

Walking on Planet Earth The best way to see something is *on foot.* You notice things walking at 3 miles per hour that often fly by your eye while sitting in a 40 MPH car or bus. Consider your ride home from school. What *details* of *nature* do you remember from all those trips you have taken by car or bus? It is like trying to take a photograph on a spinning merry-go-round. Everything gets blurred. Yet the walker gets to take a slow-motion *snapshot.* The image is captured by the eye and held for a long time. Also, the sounds and smells of nature help you remember that image. These are some reasons why walkers are such great observers.

Being A Walking News Reporter

During this workshop you will play the role of a *walking news reporter*—like a Charles Kuralt "On the Road." In this workshop your main objectives are to: (1) practice your *observation* skills, (2) appreciate your *environment*, (3) practice your *journalism* skills, and (4) appreciate *walking* as a means of discovery.

Getting a Headstart on Your Homework Your homework assignment will be to write a *short story* on any aspect of this workshop walk you find interesting. For example, consider the topics below.

The Sounds of Nature
Appreciating My School Grounds
Pollution in My Environment
Walking in Traffic
Trash Along the Highway
Wildlife in My Neighborhood
Things I Never Noticed Before
How People Behave on a Walk
Life on Main Street
The Sky Above

Picking a Topic You do not need to select a topic before your walk. Simply concentrate on everything around you as you walk, and let your *senses* be your guide. In other words, focus on whatever interests you the most!

Where to Walk? It really does not matter. There are things to see everywhere. You can walk a 1-mile loop around your school grounds, stroll down a country road, or just take a walk down Main Street. Wherever you do go, it will be important for you to stick together as a class.

Taking Notes on the Walk

Every good news reporter takes notes to "jog" the memory. Details are tough to remember unless you write them down. When you write something on paper, it forces you to think a second time. That is how you learn.

To help you take notes on your walk, you will be given a 2-minute break after every 5 minutes of walking. Take advantage of those 2 minutes to write down all the things that impress you: the flowers, the birds, the sky, the trees, the smells, the sounds, etc. *Be as specific as possible,* and *take note of details!* Use the space below for your notes.

Your first notes (on leaving school): _____

_____

_____

Your first 2 minute break: _____

_____

_____

Your second 2 minute break: _____

_____

_____

Your final notes (on returning to school): _____

_____

_____

When You Return To School

You will have a chance to describe your favorite observations to your classmates. Listen carefully to your classmates, and take more notes below. These extra notes will help you write your *short story* for homework.

Additional class notes: _____

_____

_____

_____

Homework — Workshop 12

Part (A) Based on the *observations* and *notes* you made during this week's Workshop 12, write a short story of approximately 100 words. Use the space below.

Your title: _____

Your writing outline. Before writing your short story think about all the things that went through your mind on your last walk. Outline all your good ideas below. Is there a main theme or subject on which you would want to focus?

Hint: If you are having a hard time composing your thoughts, go out on a short walk of your own. That might clear your head and help get your writing hand moving!

Be prepared to give a brief summary of your short story to your classmates in your next class.

Part (B) Read pages 51–54 to prepare for Workshop 13.

★ ★ ★ End of Workshop 12 ★ ★ ★

WORKSHOP

13

Dealing With Stress

Photo by Joanne Wilek

One of the best ways to relieve stress is simply to go walking outdoors with some friend(s) who are understanding enough to listen to your story. Sometimes just having someone to talk to can help reassure you that your worries are *not the end of the world* and that *you will survive!*

Dealing With Stress

Being Stressed Stress can work *two* ways for you. Just the right amount of stress can help you perform well. Consider for example, a final examination. Stress can keep you sharp, answering question after question quickly. Yet if that stress is too great, it can turn you into a nervous wreck, breaking you down. What does this tell us? Basically we need to control stress in our lives so that *it* helps us instead of destroying us. One way to do this is by recognizing those *factors* that stress us the most. Look at the list below. Place a check mark in the space next to the items you worry about the most.

All-Time Worry Checklist

____ School exams
____ Family problems
____ Concern over physical appearance
____ Fear of cancer or another disease
____ Dating or social problems
____ Other _____

____ Financial worries
____ Nuclear war
____ Peer pressure
____ Fear of dying
____ Stagefright
____ Other _____

What Can We Do About Stress?

Point 1 Let's say something is eating away inside of you so much you can hardly think about anything else. Do you ever get that way? If only you could ask yourself: *"What's the worst thing that could happen to me? Really!"* If you honestly answer that question, you may see you've been *"making a mountain out of a molehill."* Just try to realize that you will survive with the most important thing in life: *your health.* Then all your other worries become secondary.

Point 2 Often it pays to talk your problems over with someone you trust—a close relative, a teacher, a guidance counselor, or a friend. Just opening up in conversation with a sympathetic listener can do wonders in relieving tension.

Point 3 Outdoor walking will help you reduce stress because the breeze on your face and the fresh scents of nature remind you that you are alive, and there is so much life out there to enjoy. So why worry? Be glad for all the good things out there you can enjoy, and try to improve on the little things that are not perfect in your life.

Walk Away from Stress Review your **All-Time Worry Checklist** again. In the space below, write down the 2 biggest worries you have right now.

Worry 1 _____ Worry 2 _____

Splitting into Teams In this *Dealing with Stress* workshop you will be walking in groups of 3. Do not worry about your pace. Just walk relaxed. The main objective is simply to discuss any worries or concerns that you feel comfortable sharing with your teammates. If at first you feel better as a *listener,* then be just that. You can help your teammates relieve stress by listening and being understanding. Once you see this, you'll probably feel like opening up with some of your own worries or concerns. On this workshop walk do not feel as if you need to come up with a total solution to a problem. Just trying to *understand* your problem or somebody else's problem can help tremendously. So as you walk, relax, enjoy the air and companionship of your teammates. As your walking conversation progresses, keep this *big question* in the back of your mind: *"So what's the worst that can really happen from my problem?"*

Upon Returning to School

Take 5 minutes to summarize what you have learned about (1) *stress in your life,* and (2) *stress in your teammates' lives.*

What bothered you before this walk? _____

_____

How do you look at it now? _____

_____

How did you help your teammates relieve their stress? _____

_____

Sharing Ideas With Your Classmates

After recording your thoughts, feel free to share your feelings on stress with your classmates. Probably many of your classmates have the same worries you do. Just hearing someone else's views can help you see that you're not alone. Use the space below to record good comments by your classmates.

Comments by your classmates: _____

_____

_____

_____

Homework — Workshop 13

Part (A) For homework you are to follow up on your class walk by going on a similar walk with a close friend or relative. Ask someone you feel at ease with. Again, try to focus on any *concerns* or *worries* on your mind. Invite your walking partner to discuss any of his or her concerns. As in class, just try to communicate and understand. Do not worry about the "10 million dollar" solution. Often the solution will come easier than you think! After your walk, briefly answer the questions below.

Question 1 What were the main subjects of your discussion?

_____

_____

Question 2 Who discussed what?

_____

_____

Question 3 Did you realize anything new about "stress" in your life?

_____

_____

Question 4 What is it about walking outdoors with a friend that helps you get rid of stress?

_____

_____

Question 5 Name a few people who you would be comfortable walking and talking with on topics that worry you.

_____, _____, _____, _____, _____.

Question 6 How could you arrange to go out on some relaxing, stress-reducing walks in the near future?

_____

_____

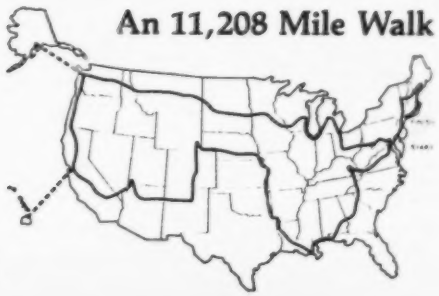
Part (B) Read pages 55–57 to prepare for Workshop 14.

★ ★ ★ **End of Workshop 13** ★ ★ ★

WORKSHOP

14

A Walk Across America



(A)

Photo by John Gordon.

(C)

(A) Rob Sweetgall began his walk in Delaware on September 7, 1984, walked straight across the northern Great Plains and Montana's cattle prairie (late autumn) and crossed the Cascade Mountain Range to arrive in Seattle on Christmas Eve. Then Rob walked down the Pacific Coast to San Francisco (January 1985), across the Mojave and Great Basin deserts (mid-winter), along the Colorado River Gorge and back along the Rockies north of Denver. By springtime he was heading downhill, west of the Rockies and across the wheatfields and the cornfields of Nebraska. Rob's summer was spent walking the bayous of Louisiana, the Gulf Coast, and up through the ridge and valley regions of Appalachia before reaching the Atlantic Ocean at Portland, Maine. Rob's homestretch walk was 500 miles through New England. He finished in New York City on Pier 16 on September 5, 1985 completing his 50-state solo walk in 1 day short of a year. What would you pack in a tiny waistpack like the one Rob wore if you were going to walk across America without a support vehicle at your side?

(B) Rob's feet—20 million footsteps—3 pairs of leather walking shoes slit open with a razor blade for ventilation.

(C) When you walk across America you can't always pick your days. Some days are warm and sunny; others are wet and sloppy—like day 205 in Colorado Springs.

A Walk Across America

Your New Scholarship Pretend the American Walking Foundation has just awarded you their "Roads Scholarship." What is a "Roads Scholarship?" Each year the Foundation selects 4 to 6 special students and pays their way on a 4 month walk across America. These students are excused from their fall semester (September to December) for the period of the journey. Yet their education does not suffer. Talented teachers meet the road scholars each day to spend as many as 50 hours a week teaching the students such subjects as: health and exercise, science, geography, environmental science, history, math, reading, and writing.

Let's Make Believe For the purposes of this workshop suppose a letter addressed to you just arrived in the mail. It reads:

THE AMERICAN WALKING FOUNDATION
2 FOOTSTEP DRIVE
WALKERSVILLE, WY

Dear Roads Scholar Candidate:

Having reviewed thousands of applications, our Foundation is pleased to inform you that you have been selected as one of this year's 30 semi-finalists to *walk across America.*

To help us make our final decision, we are grouping regional semi-finalists in a problem-solving project to test your basic survival and outdoor aptitude and to observe your ability to communicate in a team setting.

The group problem that you will face with your team is to *select from a list of 18 objects the 10 most important ones* necessary for your journey. The specific objects will not be revealed to you until the day of your team meeting next week. However, you can prepare in advance by considering the *most essential* things that you would pack to walk 3000 miles from the Pacific to the Atlantic Ocean, across mountains, deserts and plains, starting in Autumn (September) and ending in Winter (December). You will be hearing from us shortly. Good Luck.

Happy Walking,
Dr. Hugh Will Makit
Dr. Hugh Will Makit

The Semi-Finals This is it. You and your semi-finalists have been flown to a huge convention center. There, in a conference room, your proctor divides you into 5 teams and hands you each a sealed envelope to open. You open it and read:

> Congratulations on making it to the semi-finals! Listed below are **18** items you may take with you on your walk across America. In selecting your **10**, and only **10** items, assume that there will be a *support vehicle* to accompany you, but that this vehicle has *absolutely* **no** *spare room* to carry extra clothing and articles. Anything you select must be carried on your body by you each and every day of the trip. The support vehicle is heated and equipped with bed bunks, blankets, a completely stocked kitchen, and a bathroom with hot and cold running water. Based on this information, *select* the **10** most essential items you would carry on a 4 month walk across America.

Note Your team will have 16 minutes of walking to reach its decision. After your team walk, your team will be given a chance to defend its choices.

Hint To save time, consider ruling out those 8 items you *would leave behind.*

Circle the number of the items you would take:

1. Snowshoes
2. Flashlight
3. Road maps
4. Snake-bite kit
5. Warm mittens
6. Foot-care kit
7. Radio headset
8. Canteen & water
9. Camera and film
10. $1500 in travelers checks
11. $1000 in cash
12. Toothbrush and dental floss
13. Comfortable walking shoes and socks
14. Rainproof jacket and pants
15. Top and bottom wool long johns
16. Waistpack (daypack)
17. Walking journal and pen
18. Insulated, waterproof hat and Hood

Final Team Decision Darken the numbers of the items you would NOT take with you.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18

After Your Team Walk Select a team spokesperson to explain your team choices. Each team spokesperson will have 2 minutes to explain his/her team strategy. Take notes (below) on each team's reasoning.

_____

_____

_____

Homework — Workshop 14

Part (A)

Your Walk Across America Project

Study the map below carefully, and try to picture yourself starting a journey on foot of the 50 states (Alaska and Hawaii by air). Figure that you will start walking from your hometown at the beginning of the school year-September. In what direction would you head first? Where will you spend the winter? The spring? The summer? Plot your planned course on the map in red pencil alongside of Rob's path. Remember to touch all 50 states in your 1-year walk to bring you back to your hometown by the next school year. Good luck!!!

A 50-State Walk

Shown above is the way Rob Sweetgall traveled on his 50-State Walk of America. Rob mapped out his route based on 50-year weather averages to cross Montana before the long, cold winter and arrive in the Mojave Desert at the coldest part of the year-early February. After a winter in the desert, Rob hit the windy Great Plains (springtime), and the Appalachian Mountains and New England's coast by summer. How would you plan a 50-State walk to beat the weather?

Part (B)

Read pages 59-61 to prepare for Workshop 15.

★ ★ ★ End of Workshop 14 ★ ★ ★

C6

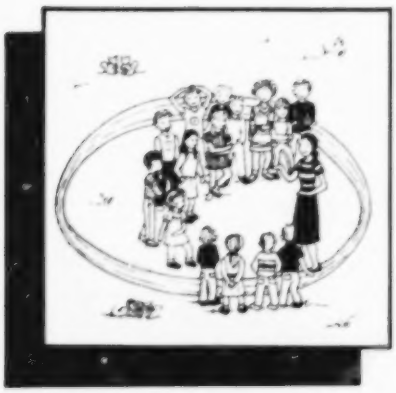
WORKSHOP

15

Self-Improvement

Photo by Patsy Ahrns

Tree Walks: At the Cottonwood Country School (Ismay, Montana, population 21), the student body of 9 (1st through 6th grade) walks after lunch. They walk to a cottonwood tree that sits precisely 643 yards (6.4 football fields) away from their white wooden schoolhouse on a dirt road along the prairie. Walking to the tree and back to school takes six minutes (at 3.75 MPH). These walks keep everyone alert for their afternoon classes. Pictured are Principal/Teacher: Frank Marble; 2nd grade: Troy, Wendy and Tamara; 3rd grade: Karla; 4th grade: Shawn and Kari; 5th grade: Wade; and 6th grade: David and Jeff.



The Walking Review

What Have You Learned? The purpose of this workshop is to *review* what you have learned through *Walking Wellness* and to see how your body has improved. As you complete each of the following FOUR walking exercises, answer the questions for the particular exercise.

Walking Exercise 1

Assemble at the start of the *Straw Walk* course. Your goal is to walk *1 lap* at a pace of 3.5 MPH. Judge your pace *by yourself—not* by the pace others walk. As you finish, listen for your *lap time*. Then answer questions (1) through (4) below.

1. How close to 3.5 MPH did you just walk? _____ MPH
2. How would you describe 3.5 MPH walking?
   (a) Hardly moving (c) Brisk
   (b) Comfortable (d) Exhausting
3. When would you normally choose to walk at 3.5 MPH?
   (a) On a long hike (c) In everyday walking
   (b) Around school (d) All of the above
4. If you walked 3.5 MPH for 3 hours, how many miles would you have walked?
   (a) 3 (b) 6.5 (c) 9 (d) 10.5 (e) 12

Walking Exercise 2

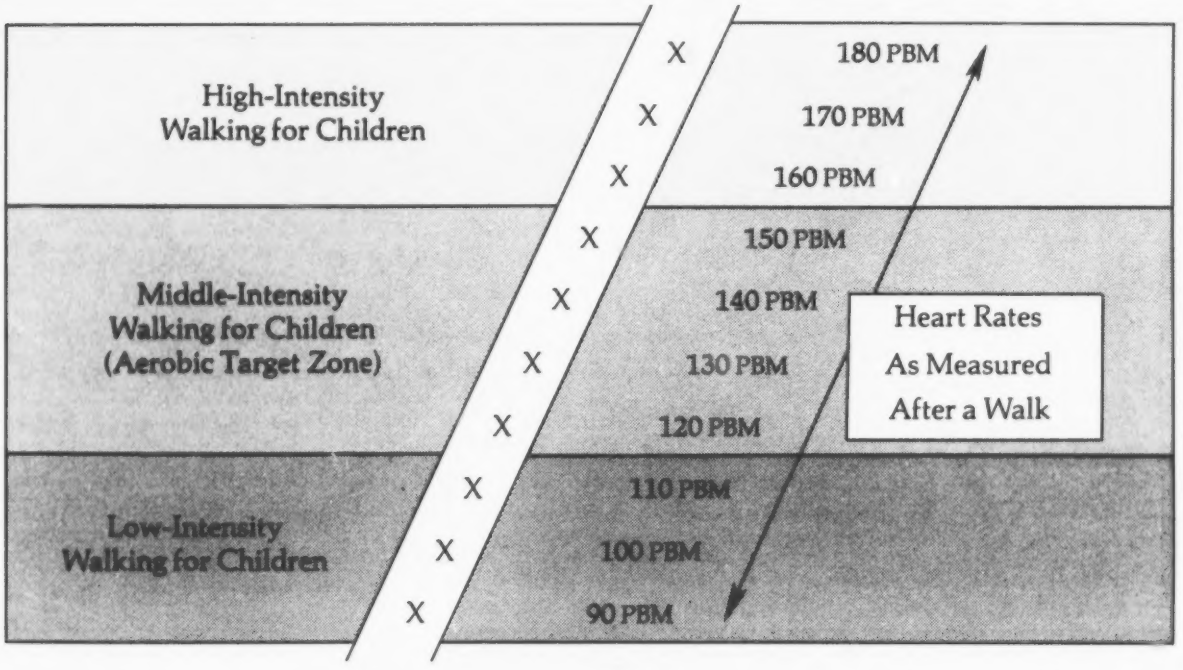
Repeat exercise 1 at a 4 MPH pace and answer questions 5 & 6.

5. How close to 4 MPH did you walk? _____MPH
6. How can you distinguish between 3.5 MPH and 4.0 MPH walking?
   (a) At 4 MPH your heart beats faster.
   (b) At 4 MPH you breathe harder.
   (c) At 4 MPH you sweat more.
   (d) All of the above.

Walking Exercise 3

Walk *1 lap* at a pace that will raise your heart rate into the *aerobic target zone* of 120 to 150 *beats per minute*. Check your heart *immediately* after you complete your lap. Then answer questions 8 through 11 below.

8. Did you walk fast enough to raise your heart rate into the aerobic target zone? Answer by circling the appropriate "X".



Walking Exercise 4

Your New Straw Walk Score. Remember your first Straw Walk when you tried to walk as many laps as possible in 15 minutes? Turn back to page 12 to review your Straw Walk Scores. Now ask yourself: "Can I top my previous Straw Walk performance?" In this final Straw Walk exercise, try your best to walk as far and as fast as possible in 15 minutes. Record your results below.

My New Straw Walk Record

My first Straw Walk Score ____ . ____ (MPH) see page 12
My second Straw Walk Score ____ . ____ (MPH) see page 12
My best score this year ____ . ____ (MPH)
My New Straw Walk Score ____ . ____ (MPH)

Homework — Workshop 15

Question 1 Compare your New *Straw Walk* Score in Workshop 15 to your past score. If you improved, what made the difference?

_____

Question 2 If you did not improve, what could you still do to increase your walking performance in the future?

_____

Question 3 In this *Straw Walk* you spent enough energy to burn up:

(a) an apple (b) a celery stick (c) a carrot (d) a candy bar

Question 4 In calculating your pulse, why do you count heart beats for 6 seconds and then multiply that count by the number 10?

(a) 10 is a nice number.
(b) The *Straw Walk* course has 10 sections.
(c) Since 6 seconds equal $^1/_{10}$ minute, we need to multiply our count by 10 to find the number of beats in a full minute.

Question 5 _____ TRUE _____ FALSE As long as you played sports in your school days, it really *does not* matter if you become inactive later in life.

Question 6 _____ TRUE _____ FALSE You can completely offset the bad effects of *smoking* and *poor diet* by *exercising*.

Question 7 _____ TRUE _____ FALSE The best way to stay free of tobacco is to never start using it in the first place.

Question 8 _____ TRUE _____ FALSE If one of your parents or grandparents had a heart attack, then your health habits are not that important because you will probably have a heart attack anyway.

Question 9 _____ TRUE _____ FALSE The best reason to exercise is to improve your chances of winning in sports.

Part (B) Read pages 63–67 to prepare for Workshop 16.

★ ★ ★ **End of Workshop 15** ★ ★ ★

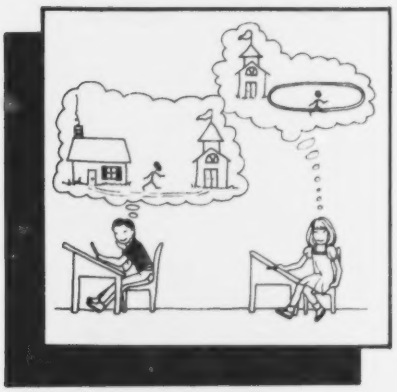
WORKSHOP

16

Your New Walking Program

Photo by Donna Conner.

Walking In Wyoming At Pine Bluffs, Wyoming Elementary School all the grades compete against each other for the most miles walked. Here 6th grader, Jesse Curtis, types data (miles walked by the students) into the school computer to keep a record on file of all miles, grade by grade. After some 2300 miles of walking on the Oregon Trail, the 4th grade had built up a 130 mile lead on the 6th grade, and a 400 mile lead on the 5th grade.



A Team Planning Walk

Some of the most creative ideas you will ever think will come to your mind on a walk. In the exercise that follows, you will get a chance to discover this as you walk in teams with your classmates. Your goal is to develop A PERSONAL WALKING PLAN that you intend to follow this summer and next fall. As you walk along with your teammates, discuss all the possible ways that walking could enrich your life. Do not worry about agreeing on a single walking plan. Each of you may well have your own personal preferences. It is much more important for you to develop a plan that is enjoyable for you.

To help you get started, consider a few of the ideas listed below. Check the ones that appeal to you most:

- ☐ I will walk a mile a day to and from school.
- ☐ I will walk 2 extra miles for every dinner dessert I eat.
- ☐ I will help organize a new school walking club.
- ☐ I will ask my teacher for permission to have our class walk on our free time.
- ☐ I will take a 10-minute walk at the end of lunch so that I will not fall asleep in class in the afternoon.
- ☐ I will lose 5 pounds this year by *walking* 15 extra minutes a day in place of watching TV.
- ☐ I will take short brisk walks to perk me up for my homework when I arrive home from school.

After Your Walk

Take a few minutes to summarize the ideas that you discussed on your walk. Which ones do you think are reasonable for you to follow up on?

Idea 1 _____

Idea 2 _____

Idea 3 _____

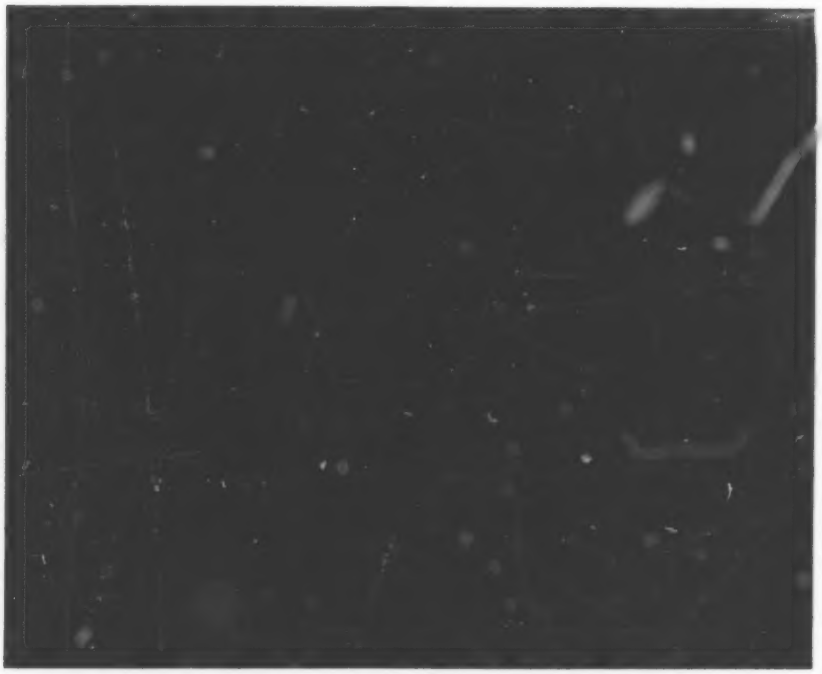
Idea 4 _____

Team Discussion

Regroup with your walking teammates and elect a team spokesperson-someone who will give a 3-minute summary of all the ideas that your team discussed on your walk. As a team, prepare an outline to help your spokesperson make an effective presentation. Also, in the space below, take notes on the ideas presented by other teams.

Our Team's Ideas	Other Teams' Ideas
(A) _____	(A) _____
(B) _____	(B) _____
(C) _____	(C) _____

Edward Payson Weston: In 1909, the great walker, Edward Payson Weston, started out from California walking to the east coast. Three months later, he reached New York City. On that walk, Weston averaged 41 miles per day – at age 71. When he was in his eighties, Weston was still walking 20 to 25 miles per day. How many miles a day would you be willing to walk this summer to stay healthy?



Homework — Workshop 16

Part (A) In Workshop 16 you listed *your ideas* for making *walking* a greater part of your life. Turn back to those ideas now. Look at them again. Which *ideas* excite you the most? Which idea(s) could you make a regular part of your life?

Your Goal For Homework

Keep developing your ideas for your New *Walking* Program.

Hint 1 A great way to develop your plan is by taking a *walk*, just as you did in school. Take your notebook with you in case an idea *hits* on your walk. Keep reviewing your old ideas (pages 64 and 65). Also review the *Creative Walking Ideas* shown in your appendix (page 73). Spend at least *1 hour* this week *walking, thinking and writing* to develop a good *Action Plan*. Record individual ideas in the space below.

Your favorite walking ideas

Idea 1 _____

Idea 2 _____

Idea 3 _____

Idea 4 _____

Part (B) Using all the *ideas* you generated both in school and at home, write a short composition on *how you plan to use walking in your daily life to stay healthy.* Let this composition be **YOUR *NEW WALKING* PROGRAM.**

My New Walking Program

_____

_____

_____

_____

_____

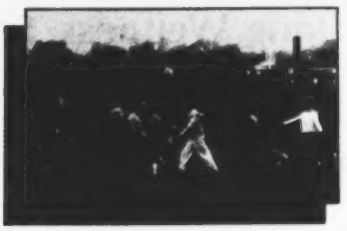
_____

Part (C) **For Your Next Class:** Be prepared to discuss **YOUR *NEW WALKING* PROGRAM** with your classmates in your next class.

A Final Note

Although you have finished all 16 workshops in this course, *Walking Wellness does not* need to end here. Remember, you can walk down **Wellness Road** the rest of your life.

★ ★ ★ **End of Workshop 16** ★ ★ ★



Appendix

Photo by David Parker, Marysville Appeal Democrat.

The long stretches . . . day 139 . . . A Walk Across America . . . Rob Sweetgall walking and thinking and sightseeing along the walnut orchards of Rio Oso, California.

Contents

A Ten *Walking Wellness* Tips

B The Walking Calories Chart

C Avoiding Your First Heart Attack

D Glossary—Walking & Exercise Science

E Creative Walking Ideas

F Great Walking Quotes

Ten Walking Wellness Tips

In starting a fitness walking program, take it easy at first. Build up your mileage and speed gradually, month by month by month. Back off when the first sign of soreness or pain sets in during or after a workout.

Mix it up! Try a variety of workouts consisting of longer, slower walks and shorter, faster walks. Alternate your *hard* (more difficult) workouts, with your *easy* (less difficult) workouts to give your body recovery time.

For *weight loss*, walk for time—preferably 6 to 7 days a week. Do not worry about speed. For *cardiovascular conditioning*, walk more briskly (over 70% maximum heart rate) about 3 to 4 days a week.

On *footwear* and *footcare*—wear comfortable fitting shoes (not too tight) designed for walking—shoes that firmly support your feet. Wear thin, clean, dry stretch socks that wick away sweat. Powder your feet to reduce friction. Air your feet often. They need to breathe, too!

Give yourself time for *warming up* and *cooling down* so as not to shock your system. Slow, easy walking serves as an excellent warm-up and cool down along with static stretching.

Avoid walking on roads where traffic is a hazard. Parks, playgrounds and walking trail/courses are safest. It is best to walk in a *group* and in *daylight!*

For high walking performance, swing your arms forward and back at your sides. Keep your body and head straight. Walk tall! Breathe naturally, step briskly and relax!

For longer endurance walks, aerobic pacing is critical. Do not walk faster than your *speed limit*—your "cruise control" speed. For example, in the *Straw Walk*, your "cruising speed" is the pace you can maintain steadily for 15 full minutes.

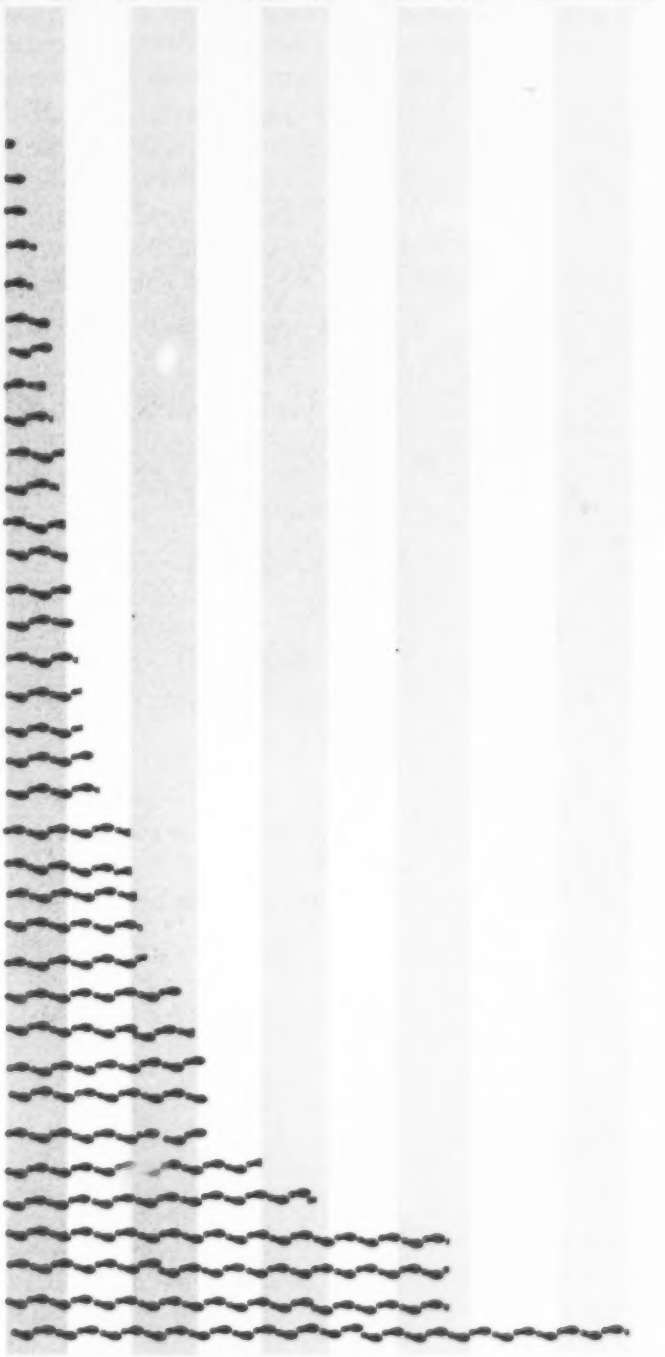
Avoid walking immediately after heavy meals. Give your body time for digestion. Often though, an easy stroll after a light meal is good. Also avoid eating foods rich in (1) fat (greasy/fried), (2) sugar, and (3) salt. Many "fast foods" are full of fat, sugar or salt.

For your mind—to avoid boredom, try keeping your mind occupied with *pleasant* and *exciting thoughts*—your next meal, a movie you will see, your new creative project, or an interesting point of nature around you. Focus on *anything* that takes your mind off those miles and minutes. Even looking for loose change (coins)* on the ground can pass time.

*Rob Sweetgall kept a walking total of the money he found along the highways and in the streets while walking the 50 states. A penny here, a nickel there. After 1 year, he had found $182.82.

The Walking Calories Chart†

Food Item	Total Calories
water	0
12 oz. club soda	1
1 cup lettuce	10
1 cup raw spinach	15
sm. cucumber	25
1 cup string beans	30
1 cup watermelon	40
1 cup popcorn	40
½ canteloupe	50
1 oatmeal cookie	50
1 tbs maple syrup	50*
slice bread	65
1 orange	75
1 cup grapes	75
1 tbs peanut butter	95
1 fried egg	100
med. banana	100
slice American cheese	105
1 cup orange juice	115
1 cup apple juice	115
1 cup cooked peas	115
slice buttered bread	125
1 cup hot oatmeal	130
12 oz. cola	150*
1 cup wild rice	150
1 cup whole milk	160
med. baked potato (plain)	170
12 oz. beer*	180
½ cup raisins	210
slice pizza*	225
1 cup ice cream*	250
slice apple pie*	250
1 choc. candy bar*	250
lg. french fries*	300
med. fast food burger*	360
2 pc. crispy fried chicken*	500
1 fast food fried fish sand.*	500
1 slice pie ala mode*	500
1 extra thick shake*	700



*Poor diet choice due to either high sugar, high salt (sodium), high fat or alcohol content.

†Caloric values based primarily on USDA Agricultural Handbook Data and American Council on Science & Health Data.

How To Avoid Your First Heart Attack

Heart attacks do not just happen because people grow old. They happen because people abuse their bodies throughout life. The heart attack is only the final blow.

In the early 1950's medical scientists performed autopsies on young American soldiers killed in the Korean War. In examining our soldiers' blood vessels, doctors discovered thick, hardened deposits of cholesterol stuck to the walls of major arteries in 2 out of every 3 of our 18 to 20-year-old boys. At about this time, scientists in Framingham, Massachusetts started a very revealing research study. They began examining thousands of people in Framingham, looking at their smoking, eating and exercise habits . . . year after year after year . . . for 35 years. By 1980, the researchers found that *half* the town's people had suffered from heart attacks or strokes. But what really impressed the researchers was that they could predict the "heart attack victims" just by looking at their lifestyles habits. The victims shared many of the same *risk factors*, since named the *Framingham Risk Factors.*

Framingham Risk Factors For Heart Disease

- Smoking
- High blood pressure
- High cholesterol
- Overweight
- Lack of exercise
- Stress
- Diabetes
- Abnormal heart beat
- Family history*

*Family history is more the inheritance of lifestyle than the inheritance of genes.

Look at these *risk factors.* Do any of these appear in your life or in the lives of members of your family? *The more risk factors you have in your life—the greater your chance of having a heart attack.* Many of the Framingham victims had 2 or more *risk factors.* How many do *you* have?

The good new is that these risk factors are controllable. By following good health habits for life, *you* can minimize your risk of having a heart attack. All you need to do is remember what the *letters* of the Spanish verb ***Saber*** stand for, and make those *letters* part of your life.

Stay away from fatty foods.
Avoid tobacco.
Blood pressure—control it!
Exercise and walk often.
Reduce excess weight.

Would you be willing to go home and teach the meaning of ***Saber*** to your family?

Glossary—Walking and Exercise Science

Aerobic Occuring in the presence of oxygen.

Aerobic exercise Any exercise in which muscles work, burning fuel in the presence of sufficient oxygen supplies.

Aerobic target zone The recommended heart rate training level for conditioning usually based on a percentage of the maximum estimated heart rate (typically 60% to 80% of maximum heart rate).

Anaerobic Occuring in the absence of oxygen.

Anaerobic exercise Any exercise in which muscles work intensely for short periods of time with insufficient supplies of oxygen (i.e., winds sprints, 50-yard or 100-yard dashes).

Athlete's foot A fungal infection of the skin of the feet often resulting in fluid-filled blisters and red, dry, scaly, itchy skin. Best prevented by keeping feet and shoes *clean* and *dry*, with frequent *airings*.

Blisters Localized skin irritations (characterized by fluid collection under the skin) resulting from excessive heat build-up and friction. Prevented with comfortable shoes, foot powder, air cooling the feet, and clean, dry socks.

Blood pressure The pressure (force per unit area) exerted by circulating blood on the inside blood vessel walls.

Brisk walking A fast pace of walking (typically 4 MPH or more), sufficient to raise the walker's heart rate into the "aerobic target zone."

Cadence The number of total footsteps (lefts & rights) taken in a minute of walking. Typically a walker's cadence ranges from 100 to 130 footsteps per minute.

Callous A build-up of dead, thickened, dry skin occurring at pressure points where there is excessive rubbing and friction.

Calorie The amount of energy it takes to raise 1 gram of water 1°C

Carbon monoxide An invisible poisonous gas (found in tobacco smoke) that attaches to the blood's hemoglobin to "starve" the smoker of needed oxygen.

Cardiovascular system The heart ("cardio") and its network of blood vessels ("vascular") responsible for circulating oxygen and nutrients to the working muscles.

Cholesterol Fatty substances manufactured by the body to help insulate nerves, build hormones and distribute fat throughout the body. Excessive cholesterol (often resulting from a diet rich in saturated fats) deposits in the arteries, blocking blood flow.

Dehydration Excessive loss of body fluid (water) leading to dizziness, fainting or possibly death. Often caused by lack of fluid (water) replacement during sweat-producing activities.

Emotional stress An uptight feeling in an uncomfortable situation involving worry.

Fitness walking A form of natural walking that helps condition the body.

Frostbite Local freezing of the skin occurring when the skin temperature drops below 32°F. Skin turns numb and ultimately goes from red to waxy-white (like frozen meat). Best prevented by properly insulated outerwear.

Heart rate recovery The return to normal resting heart rate following exercise.

Heel-toe walking The walker's natural foot motion. For example, the walker's foot lands on the *heel*, rolls over the ball, and pushes off on the *toes*.

Hypothermia Excessive drop in body temperature (1°F to 2°F) due to rapid heat loss resulting in loss of physical motion and in severe cases—death. Best prevented by properly dressing to stay dry and warm, especially in the head region.

Maximum estimated heart rate (MEHR) The highest rate at which a person's heart can beat. Estimated by the formula: MEHR = 220 − AGE. For example, for a 12-year-old child, MEHR = 220 − 12 = 208 beats per minute.

Nicotine A drug found in tobacco which: (1) increases stress on the heart, (2) closes down (constricts) blood vessel openings, (3) raises blood pressure, and (4) damages blood vessel walls.

Overtraining Excessive physical training in any sport leading to overuse injuries, mental burnout, and overall reduced performance.

Pacing An exercise technique involving smooth, consistent and rhythmic timing to conserve energy over longer periods of time.

Podiatrist A doctor specializing in the treatment of foot disorders.

Pronation An excessive inward rotation of the foot on landing, more typical of people with flat feet (low arch).

Race walking A specific type of brisk walking that relies on hip swivel and high-energy, quick arm swing for fast body propulsion.

Shin splints A painful muscle injury in the front leg region about halfway between the knee and ankle resulting from *overuse* and *muscle imbalance*.

Side stitches Sharp shooting pains in the abdominal area directly under the rib cage—often caused by insufficient warm-up, diaphragm expanding into ribs, or trapped gas after a meal.

Straw Walk A 15-minute, maximal effort walk in which the walker tries to cover as many laps as possible of the ¼ mile long *Straw Walk* course.

Straw Walk course An accurately measured ¼ mile (440 yards) walking loop marked in *ten*, 44 yard sections.

Straw Walk score A measure of aerobic walking capacity and aerobic fitness determined by the total number of ¼ mile laps (with partial fractions) walked in 15 straight minutes.

Stress The rate of wear and tear on the human body as a result of positive and negative changes.

Stride length The consistent distance measured between 2 consecutive footsteps—left heel strike to right heel strike.

Target heart rate The appropriate level at which one's heart should beat during aerobic exercise (measured in beats per minute, BPM). Normal range for aerobic walking for children = 120 to 150 BPM.

Walking posture The position of the human body while walking.

Wind chill factor A number that measures the combined effect of *cold temperature* and *wind* on body heat loss.

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Creative Walking Ideas

20 Wellness Action Plan Concepts Based on Simple, Safe, No-Sweat Walking

Walking is so natural and inexpensive that we take it for granted, missing golden opportunities to use it to benefit our health. Here are 20 starter ideas to help make walking a greater part of your everyday life.

1. Start a school walking club to "perk" you up after lunch.
2. Challenge your teachers to a *Straw Walk* tournament as an incentive program for getting in shape.
3. Keep a walking journal, and plot your miles on a map to see if you can walk across (1) your state or (2) America.
4. Design a walking field trip that is educational, and propose it to one of your teachers.
5. Plan a project with your teachers that has the day starting with a 10-minute homeroom walk to sharpen your morning mind for the day ahead.
6. Plan on walking to and from school a few times per week.
7. Plan regular weekend hikes with your family, and get them to say *yes* to specific weekend hiking dates.
8. Continue on *Tobaccoless Road* by trying to get 1 friend or relative *off* tobacco and *onto* walking.
9. Maintain a regular (daily) walking diary/journal to practice your writing and observation skills.
10. Set a weekly goal for *increased* walking, and *decreased* TV, and try to make your goals each week.
11. Start a walking committee with your Parent-Teachers Association to increase walking in the community.
12. With your committee, plan a *family fitness walk* for everyone in your school and community.
13. With your committee, start a project to build a safe and scenic walking path for your school and community.
14. Develop a program that uses walking to clean up your own environment.
15. Design you own personal fitness walking program for the next year of your life.
16. With your fitness walking program, maintain a *food log* to see if your walking is helping to improve your dietary habits.
17. Start a family walking club in which you and your family take regular walks each night after dinner.
18. Develop a routine in which every time you get upset or worried about school exams, you *switch* gears by going for a refreshing, relaxing walk.
19. If you need to lose weight, start a fitness walking logbook in which you record *minutes of walking* and *calories expended* (Hint: figure 5 calories per minute of walking, and 3500 calories per pound of body fat.)
20. Follow-up on *Walking Wellness* by practicing such workshops as *Posture Walk, Straw Walk, Teamwalk, Aerobic Walking,* and *Walking Calories.*

Great Walking Quotations

"Of all exercises walking is the best."

Thomas Jefferson (1786 Letter)

"The sum of the whole is this: walk and be happy; walk and be healthy. The best way to lengthen out our days is to walk steadily and with a purpose."

Charles Dickens

"If you want to know if your brain is flabby, feel of your legs."

Bruce Barton

"I have two doctors—my left leg and my right leg."

George Trevelyan

"A sound mind in a sound body, is a short but full description of a happy state in this world."

John Locke, *Some Thoughts Concerning Education*

"The first wealth is health."

Ralph Waldo Emerson, *Conduct of Life*

"Life is not merely to be alive, but to be well."

MARTIAL, *Epigrams.*

"Take a two-mile walk every morning before breakfast."

Harry Truman (advice on how to live to be 80, on his 80th birthday)

"Before supper walk a little; after supper do the same."

Erasmus

"We must walk before we run."

George Borrow, *Lavengro*

"I am a slow walker, but I never walk backwards."

Abraham Lincoln

"It is health which is real wealth and not pieces of gold and silver."

Mahatma Gandhi

"Walking would teach people the quality that youngsters find so hard to learn—patience."

Edward Payson Weston

"Every walk is a sort of crusade, preached by some Peter the Hermit in us."

Henry David Thoreau, *Walking*

"Two roads diverged in a wood, and I—
I took the one less traveled by,
And that has made all the difference."

Robert Frost, *The Road Not Taken*

"The [English] *literary movement at the end of the 18th century was obviously due in great part, if not mainly, to the renewed practice of walking."*

Leslie Stephen, *The Art of Walking*

"For you, as well as I, can open fence doors and walk across America in your own special way. Then we can all discover who our neighbors are."

Rob Sweetgall, *Fitness Walking*

"It is solved by walking."

Latin Proverb

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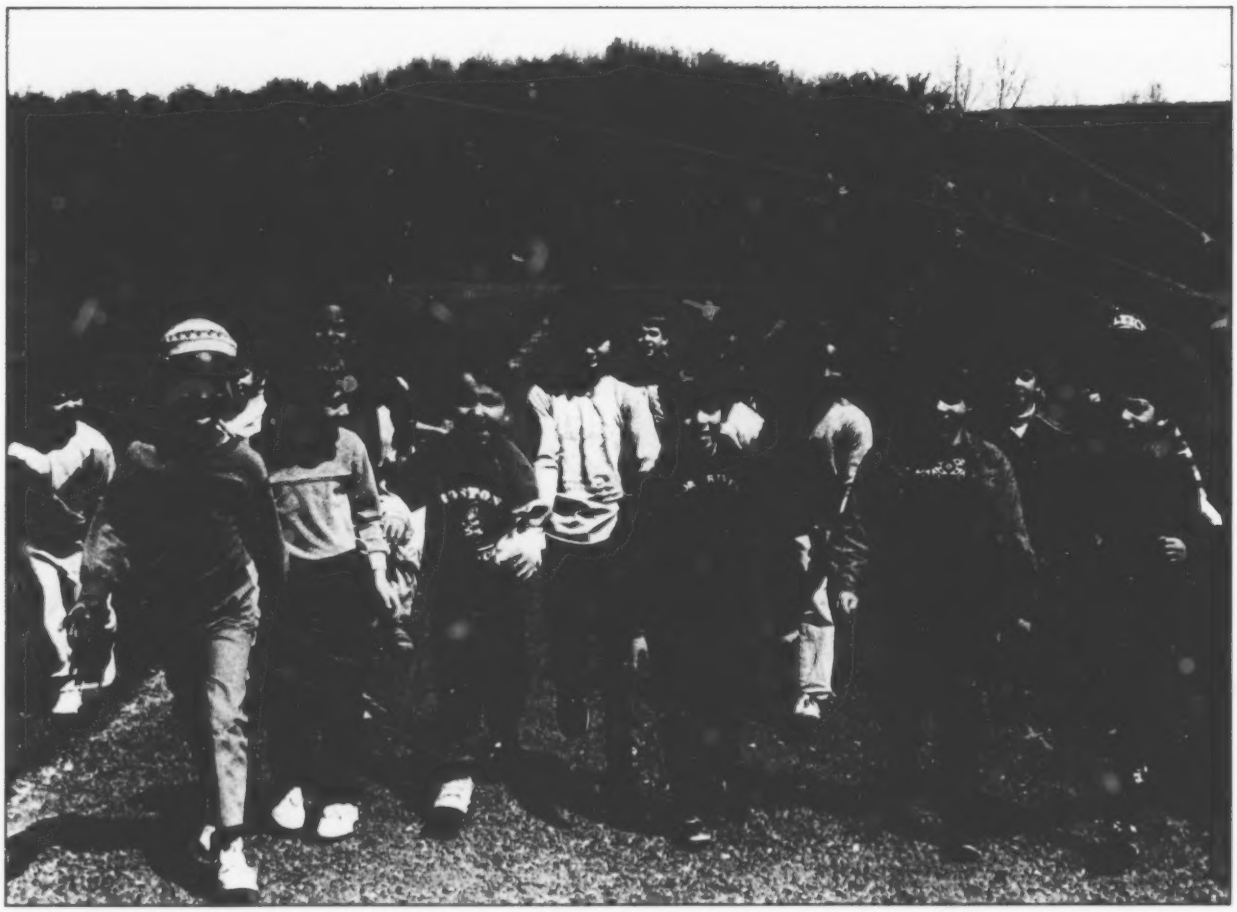

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WALKING WELLNESS

STUDENT WORKBOOK

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